THE STANDARD OF VALUE

BY

SIR DAVID BARBOUR

K.C.S.I., K.C.M.G.

Financial Member of the Council of the Governor-General of India from 1888 to 1893; Member of the Royal Commission on Gold and Silver Member of the Indian Currency Committee (1898); Chairman of the Committee on the Currency of the Straits Settlements; Author o "The Theory of Bimetallism"

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TO

THE MEMORY

OF

DAVID RICARDO

"GOLD AND SILVER HAVING BEEN CHOSEN FOR THE GENERAL MEDIUM OF CIRCULATION, THEY ARE, BY THE COMPETITION OF COMMERCE, DISTRIBUTED IN SUCH PROPORTIONS AMONGST THE DIFFERENT COUNTRIES OF THE WORLD, AS TO ACCOMMODATE THEMSELVES TO THE NATURAL TRAFFIC WHICH WOULD TAKE PLACE IF NO SUCH METALS EXISTED, AND THE TRADE BETWEEN COUNTRIES WERE PURELY A TRADE OF BARTER."

—*Ricardo.*

PREFACE

The Indian Mints were closed to the unlimited coinage of silver on 26th June, 1893, with the object of establishing Gold as the Standard of Value in that country, and this measure practically closed the Bimetallic Controversy. The Government of India have been so far successful in their policy that the Gold Standard has been effectively maintained in India since 1898, the par of exchange being 1*s.* 4*d.* per rupee.

Questions connected with the Standard of Value and the Currency have but little attraction for the general public, and to many persons the Bimetallic Controversy must have seemed little more than a war of words.

In reality a very important issue was involved in it, namely, whether the Standard of Value of the world should in the future be Gold alone, or whether it should be formed of a combination of Silver and Gold as it had been in the past.

I was employed in the Financial Department of the Government of India when the divergence in the relative value of Gold and Silver began to declare itself and, as the fall in the Indian Exchange had a serious effect on the finances of the Government of India, the subject forced itself on my attention.

In 1886 I published a work called the "Theory of Bimetallism," and I was a Member of the Royal Commission on Gold and Silver which sat from 1886 to 1888.

I was subsequently Finance Member of the Council of the Governor-General of India, and took part in the measures for the introduction of the Gold Standard into India. I was afterwards a Member of the Committee which recommended that the gold value of the Indian rupee should be fixed at 1*s.* 4*d.*

Although Bimetallism is no longer a live question, other problems connected with the Standard of Value will arise in the future, and I have decided to place on record the conclusions at which I arrived as the result of my experience and study of the subject, and also to state the circumstances under which it was decided to introduce the Gold Standard into India and explain the procedure adopted for that purpose.

I cannot hope to give the trained Economist fresh light on questions with which he is already familiar, but what I have to say may be of some assistance to the man of business who may be forced by circumstances, as I was, to give his attention to the subject.

I feel that some apology is needed for the length of my remarks on the subject of the Quantity Theory of Money and the Relation between Credit and Prices, but at the time of the Bimetallic Controversy the questions connected therewith had not been so thoroughly investigated as they have lately been, by Professor Irving Fisher, and other Economists, and the applicability of the Quantity Theory of Money to modern conditions was denied, while, as it seemed to me, wholly untenable theories were put forward regarding the relation between Credit and Prices. It is for this reason that I have felt bound to offer certain remarks in defence of a theory which, rightly understood, ought never to have been challenged.

The closing of the Indian Mints was not an isolated action, carried out by the Indian Government without reference to the circumstances of the time.

It was the outcome of a general movement

towards the substitution of Gold for Silver as the Standard of Value in the civilised world, and the Government of India, though involved in serious trouble owing to the fall in the Indian Exchange, had long hesitated as to the expediency of attempting to change the Standard from Silver to Gold.

The origin of the movement towards a universal Gold Standard was the adoption of a Gold Currency in England after the recoinage of the silver money in the time of William III., but the difficulties which the Government of India experienced were the result, direct and indirect, of the change from the Silver to the Gold Standard made by Germany after the Franco-German War of 1870. The action of Germany set in motion forces which put an end to Bimetallism and led to the almost universal establishment of Gold as the Standard of Value. China is the only great nation which still uses the Silver Standard.

As the adoption of a Gold Standard by the Government of India was only one step in a world-wide movement, fundamentally affecting the Relations which had existed between Gold and Silver for a very long period, the reasons for, and against, the change cannot be understood

without some examination of the history of the previous use of the Precious Metals as the Medium of Exchange, and Standard of Value; but, though I refer to what was done in very early times, I deal briefly with the historical portion of the subject, and only at such length as is necessary to explain the nature of the change in the Standard of Value of the world which was made subsequent to the year 1870.

My best thanks are due to Lionel Abrahams, Esq., C.B., and William Robinson, Esq., of the India Office, for the assistance they have given me in connection with the preparation of Chapter XVII.

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THE STANDARD OF VALUE

CHAPTER I

GOLD AND SILVER AS MEDIA OF EXCHANGE IN EARLY TIMES

THE progress of mankind would be seriously limited if trade were confined to barter, and a Medium of Exchange was found to be necessary at a very early stage of civilisation; the article which is used as a Medium of Exchange becomes by a natural process the Standard of Value for transactions into which the element of time enters.

Both silver and gold have been used as Media of Exchange from time immemorial. One of these metals might be the Medium of Exchange in one country, or at one time, and the other might be used as the Medium of Exchange in another country or at a different time, but it is beyond doubt that both metals were used simultaneously by the great nations of antiquity—the Babylonians, the Assyrians, the Lydians, the Persians, the Egyptians, the Greeks, and the Romans.

It will be obvious that where both silver and gold were used as Media of Exchange in the same country, or in adjoining countries, the question of the rate of exchange between the metals themselves became one of great importance.

If their relative value was changing from day to day, or even from hour to hour, as it does at the present time, their usefulness as Media of Exchange would be greatly impaired.

Contracts extending over a considerable period of time would probably have to be made in one metal, and the Government of the day would be involved in difficulties in connection with its revenue and the payment of tribute.

If both metals are used in the same country as Media of Exchange it is essential that there should be an agreement as to the ratio at which they are to exchange for each other, and it is very desirable that this should be the case if they are used separately in countries which have intimate commercial relations. For this reason we find that from the earliest times[1] there was a fixed ratio of exchange between gold and silver. It was not always the same, nor was it necessarily the same in all places at the same time, but there was generally, if not always, a well-known ratio in all places where both metals

[1] An enactment has been discovered which is believed to be of the era of Menes, the first historical ruler of Egypt, fixing the rate of exchange at one of silver to two and a-half of gold. Its date is believed to be about 3800 B.C.

were used, and this ratio sometimes remained unchanged for very long periods.

In the great Empires of antiquity there was always a fixed ratio, and the same ratio was maintained in the Babylonian, Assyrian, Lydian, and Persian Empires.

The conquest of Persia by Alexander the Great, the plunder of the East of its accumulated wealth in gold and silver by that conqueror, and the confusion that followed his death seem to have led to alteration of the ratio.

A great empire which dominates surrounding countries by its wealth and population, as well as by force of arms, can maintain a fixed ratio over a large area. A number of smaller kingdoms, with conflicting interests, cannot do so except by agreement to use the same ratio, and such agreement was in those days impossible.

That the ratio was maintained at $13\frac{1}{3}$ to one from the time of the Babylonian to that of the Persian Empire is beyond question.[1]

We do not know under what circumstances the Babylonian ratio was originally fixed, but, from the fact that the awkward rate of $13\frac{1}{3}$ to one was adopted, we are justified in holding that the ratio was not chosen arbitrarily, but that what was held to be the current or market ratio of the day was simply declared by the

[1] The reader who may wish for further information on this subject should consult the late Mr. Barclay V. Head's *Historia Numorum*.

Government as a guide to its officers in the collection of revenue and tribute as well as in making payments, and the same ratio would naturally be followed in the settlement of disputes between private persons.

The plan of using coined money had not been devised when this ratio came into existence, and gold and silver circulated by weight. Under such conditions, a definite weight of silver bore an awkward relation in value to the same weight of gold at the ratio of $13\frac{1}{3}$ to one, but this inconvenience was obviated by the adoption of different units of weight in weighing gold and silver, these units being so related to each other that the talent, mina, or shekel, of gold was equal in value to an even number of silver talents, minae, or shekels.

There seems no doubt that the units of weight were in later years adjusted to each other in such manner as to make (say) 10 units of weight in silver equal to one unit of weight in gold at the ratio of $13\frac{1}{3}$ to one, but it is possible that the ratio of $13\frac{1}{3}$ to one was in the first instance the outcome of the existence of different units of weight.

If we assume, as is very probable, that the use of gold and silver as Media of Exchange sprang up separately in different countries, and that each metal was weighed by the unit of weight of the country in which it was used, it will be obvious that when intercourse began

between these countries a definite number of pieces of silver of unit weight would naturally be held to be the equivalent of one piece of gold of unit weight, and the difference in the units of weight might result in giving the ratio of $13\frac{1}{3}$ to one as the relative value of silver to gold.

The ratio of $13\frac{1}{3}$ to one passed from the Babylonian to the Assyrian Empire, and was continued in Lydia. When the system of coining money was invented by the Lydians, the old practice of using different units of weights for the two metals was continued. The respective weights of the gold and silver coins were not adjusted by reference to the same unit of weight so as to make, say, ten silver coins equal in value to one gold coin. Different units of weight for the two metals still existed.

It would seem that the people of that time had not grasped the idea, so familiar to us, of a monetary unit which was not also a unit of weight but to which the quality of legal tender was attached.[1]

The Lydian system of coinage as settled by Croesus was very elaborate, and it seems probable that this elaboration was deliberately

[1] We had travelled a long way from the simplicity and honesty of those days when it was found difficult to say what the English monetary pound really meant. It had at one time been an amount of silver that weighed exactly a Saxon pound, but in the course of time had become 123·27447 grains of gold, eleven-twelfths fine.

adopted in order to facilitate commerce with, and the payment of tribute by, outlying provinces and tributary states which employed different units of weight.

There was a silver coin in Lydia of which ten were equal to one gold coin, and another silver coin of which fifteen were equal to a gold coin.

The ratio of $13\frac{1}{3}$ to one passed from the Lydians to the Persian Empire, Darius, son of Hystaspes, coined a gold Daric of about 130 grains and a silver *siglos* of 86 grains, so that, at the ratio of $13\frac{1}{3}$ to one, 20 *sigloi* were worth one gold Daric. Herodotus says of Darius:

"His particular division of the provinces, and the mode fixed for the payment of their assessed tribute was this: they whose payment was to be made in silver, were to take the Babylonian Talent for their standard; the Euboic Talent was to regulate those who made their payments in gold, and the Babylonian Talent it is to be observed is equal to seventy Euboic minae."

Xenophon informs us that Cyrus promised the soothsayer 10 talents of silver if his prediction was fulfilled, and that he discharged his obligation by the payment of one talent of gold. In the Persian Empire at that time silver was measured by the Babylonian Talent, and gold by the Euboic Talent, and if allowance be made for the difference in weights of the Babylonian and Euboic Talents, the ratio is found to have been $13\frac{1}{3}$ to one.

It would be useless to attempt to trace in detail the changes in the relative value of gold and silver that occurred at different times after the conquest of Persia by Alexander. As a rule we have nothing but isolated facts to depend on, and we cannot always rely on the accuracy of the statements in which they are recorded. There is, however, sufficient evidence to show that the ratio of $12\frac{1}{2}$ to one prevailed at Rome for 150 years after the return of Julius Caesar from Gaul. It must suffice to say that, so far as we know, civilised states of any magnitude usually fixed a ratio between gold and silver when used as money, though the ratio was sometimes changed.[1]

[1] It may be noted that the Romans used copper as currency before they adopted silver. At that time the Latins had considerable commercial intercourse with the Greek colonies in Sicily where silver was used. To facilitate trade, a fixed ratio of exchange between silver and copper was adopted, and it must have lasted for a considerable time, since the Sicilians found it worth while to coin a silver coin, which at the fixed ratio of exchange was the exact equivalent of one pound of copper.

"Indeed, among all the Greek systems of weight and money, the Sicilian alone was brought into a determinate relation with the Italian copper system: not only was the value of silver set down conventionally and perhaps legally as two hundred and fifty times that of copper, but the equivalent in this computation of a Sicilian pound of copper—1/120th of an Attic Talent, 2/3rds of the Roman pound—was in very early times struck, especially at Syracuse, as a silver coin (*λίτρα ἀργυρίου, i.e.* pound of copper in silver)."—Mommsen.

When the Romans began to use silver instead of copper they made the transfer at the same ratio—250 of copper to one of silver. Other facts could also be given which show that there has always been a tendency to get rid of the inconvenience arising from the use of two Media of Exchange by adopting a fixed ratio of relative value.

CHAPTER II

JOINT USE OF GOLD AND SILVER AS CURRENCY IN MODERN TIMES, AND THE EFFECT OF A LEGAL RATIO ON THE RELATIVE VALUE OF THE TWO METALS

In the dawn of modern civilisation, after the fall of the Western Empire, we find the Currency and Standard of Value to have been silver. There was very little gold in Europe at that time and not much silver.

The great stores of the precious metals which existed in the Roman Empire had been reduced by the lapse of time, and dissipated and lost in the wars and confusion that accompanied the fall of the Empire of the West, while the production of the mines had fallen off.

Gold coins were, to some extent, still coined at Constantinople.

Under the early English kings the Standard of Value was silver, and gold was not coined from the time of William the Conqueror to the forty-first year of the reign of Henry III. The Kings of England, as well as the sovereigns

of most of the kingdoms and states of Europe, possessed and exercised the right of deciding the rate at which coins of every kind should pass or be, in modern language, legal tender. Under this authority, not only the coins issued in England, but also foreign coins, whether of gold or silver, could, and did, become the legal money of the realm.

After the discovery of America the available quantity of both gold and silver increased, and the relative value of the two metals altered materially. It is commonly said that this alteration was due to the increased production of silver, and that may have been one of the causes of the change; but another, and a very important cause, was the alteration of the legal ratio between the two metals by various rulers in order to draw the metal which was rated above its market value into their own country, it being generally believed at that time that the wealth of a country depended very largely on the quantity of gold and silver money which it contained.[1]

[1] Henry VIII. was disturbed by the action of foreign nations in altering the relative value of their gold and silver coins, and after trying various expedients gave Cardinal Wolsey absolute authority, by letters patent, to have the English gold and silver coins altered in relative value from time to time so as to correspond with the alterations made abroad in the relative value of gold and silver

During the reigns of James I. and Charles I. frequent alterations were made with the object of attracting one or other metal, so that the country was at one time denuded of silver and at another of gold.

The belief was a mistaken one, and the alteration of the relative value had practically no effect in increasing the total quantity of gold and silver money in the country, as the import of one metal, due to such a measure as has been mentioned, necessarily led to a corresponding export of the other.

The English silver currency fell into a very unsatisfactory state owing to clipping of the coins in the reign of William III., and great difficulties were experienced at the time of the recoinage of the silver money under that king. The clipped money does not appear to have been current either at its nominal value or at its value as bullion. It was given a value between the two, determined no doubt by the limitation of its quantity and liable therefore to frequent fluctuations. The guinea was consequently in great demand and passed at one time for as much as thirty shillings.

When the new silver coins were issued they were exported, as the guineas circulated at 21*s.* 6*d.* each, a value in excess of that of the metal of which they were made.

Lord Liverpool conjectures that the guineas circulated at this high rate because the English people preferred gold to silver as currency and deliberately over-valued it. The English people at that time had become accustomed to use gold coins, and no doubt they found them more

convenient in making large payments than silver was, but the over-valuation was the act of the Government and not of the people.

Lord Liverpool uses the following language:

"The Legislature of this Kingdom acted in conformity with this opinion, when in the reign of King William, they limited the value of guineas by two different acts so that they should not pass in currency *above* a certain value therein described. They left them, however, to be exchanged at any rate *under* the limited value, and as the gold coins had risen to an extravagant value, while the recoinage of the silver was under consideration, it actually happened that when the recoinage was completed, guineas fell in their rate or value below the value limited in these Acts *without any interposition of public authority.*"

He says in another place:—

"The high rate of the gold coins to which the people then voluntarily submitted (*i.e.* after the recoinage) can only be ascribed to the preference which at that time began to be given to the use of gold coins in all payments, at least of considerable amount."

This explanation is on the face of it insufficient. It is in the highest degree improbable that creditors generally would receive gold coins unless they were forced to do so, or were protected in some way from loss, when they were not obliged

to receive them and could have demanded silver coins of greater aggregate value.

And Lord Liverpool's statement that the people *voluntarily submitted* to the high rate of 21*s.* 6*d.* for the guinea, *without interposition of public authority*, owing to their preference for gold is absolutely disproved by the following notification which was published in the "Gazette" of that time.

"These are to give notice, that the Rt. Hon. the Lords Commissioners of His Majesty's Treasury have given orders to the respective receivers of the public aids, taxes and revenues that they do receive in His Majesty's use all guineas that shall be tendered to them at the rate of one-and-twenty shillings and six pence a piece and *not otherwise.*"

Mr. Hopton Haynes, who was Assay Master of the Royal Mint at that time, says with reference to this notification :—

"Hereupon the King's receivers and collectors being ordered by the Commissioners of the Treasury to receive them at 21*s.* 6*d.* and an advertisement to that effect being published in the 'Gazette,' the guineas fell to 21*s.* 6*d.*, at which they passed many years before 1816 and have continued so ever since."

The matter is only of importance in the present day because an argument has been founded on what was supposed to have happened

to the effect that law is powerless to fix the nominal value of money, and that people will follow their own course. The facts, when correctly stated, prove the contrary. The people of England did not voluntarily fix the value of guineas at 21*s*. 6*d*. *without any interposition of public authority*. So great was the influence of public authority that a decision of the Government to receive guineas at 21*s*. 6*d*. a piece *and not otherwise* was sufficient to make them current at that rate, and when the Government subsequently fixed 21*s*. by proclamation, the value of the guinea fell to 21*s*. It may be added with absolute certainty that if the Government had fixed 19 shillings as the value of the guinea (which was below its market value as bullion) the guineas would have been exported, and silver coins would have taken their place.

Owing to the over-valuation of the guinea, from whatever cause it may have arisen, the chief currency of England became gold, and ultimately the legal standard of silver was abandoned mainly on the ground that gold had become the chief currency, that the people were accustomed to gold, and preferred it as currency. All these statements were true so far as they went, though it might have been added that the people of England had become accustomed, about the time when the gold standard was formally established, to an inconvertible and depreciated

paper currency, and did not display any repugnance to its use.

The change in the English legal standard from silver to gold, and the resumption of specie payments after the close of the Napoleonic War, had no effect on the relative value of gold and silver, as the French ratio of $15\frac{1}{2}$ to one was sufficient to prevent any appreciable change in the relative value of the two metals.

Taking the two markets of Hamburg and London, the highest market ratio from 1801 to 1870 was 15·8 to one, and the lowest was 15·48 to one, though during that period the relative production of gold and silver varied from 24 to 76, to 78 to 22. It can also be shown by reasoning which is almost mathematical in its strictness, that, subject to certain limitations, gold and silver must be maintained at almost the same relative value in the market if they are both freely usable as legal money at that value in countries which are important by reason of their wealth and population and which use a large quantity of coined money.

I do not know whether there is anybody at the present day who denies the truth of the proposition I have just stated, as to the possibility, under certain conditions, of maintaining what is practically the same relative value between gold and silver. In any case, I do not propose to waste the time of the reader, or

my own time, by dealing at length with the question.

It will be sufficient to quote the following passage from the Report (1888) of the Members of the Gold and Silver Commission of 1886 who did *not* favour Bimetallism [1]:—

"107. We think that in any conditions fairly to be contemplated in the future so far as we can forecast them from the experience of the past, a stable ratio might be maintained if the nations [2] we have alluded to were to accept and strictly adhere to bimetallism at the suggested ratio. We think that, if in all these countries gold and silver could be freely coined and thus became exchangeable against commodities at the fixed ratio the market value of silver would conform to that ratio and not vary to any material extent. . . ."

"108. We do not deny that it is conceivable that these anticipations might be falsified by some altogether unprecedented discovery of one or other of the precious metals and that the maintenance of a stable ratio might then become difficult. But for practical purposes we may put this aside and reasonably act on the assumption that no such grave dislocating cause is likely to arise."

Two of the Members of the Commission who

[1] All the other Members of the Commission held the same opinion.

[2] The United Kingdom, the Latin Union, Germany, and the United States of America.

signed this passage added a qualifying note in which they expressed their doubts as to the possibility of maintaining International Bimetallism through an indefinite period of time in face of all the changes which might occur in the production of the precious metals.

Although there is no doubt that the same ratio can, under certain conditions, be maintained between the two metals when used as money, it is probable that there would occasionally be a slight premium on one or other if it was wanted for particular purposes. The Bank of England is bound by law to give £3 17*s.* 9*d.* for every ounce of standard gold, which can be coined into £3 17*s.* 10½*d.*, but it will sometimes give more. Persons who want gold for export will select the heavier coins, and will pay something extra for such coins. The rate of exchange between the gold coins of different countries is not always in exact proportion to the quantity of gold contained in them. I cannot see that the existence of any similar premium from time to time on either gold or silver coins would be productive of serious inconvenience.

It is sometimes said that bullion dealers would take advantage of the temporary premium or agio on either gold or silver to make an illegitimate profit. I do not doubt that they would take advantage of temporary and local differences in value to make a profit, but I do not see

why the profit should be stigmatised as not legitimate. Every man who trades buys in the cheap market and sells in the dear one, with the object of making a profit; by so doing he confers a benefit on the community, and there is no better ground for calling that profit illegitimate in the case of gold and silver than in the case of any other article.

I may explain that while it is possible to maintain practical equality of value, under certain conditions, between gold and silver, it does not necessarily follow that it is advisable to take measures to this end. There still remains for decision the all-important question whether, under modern conditions, it is expedient to do so or not.

CHAPTER III

ABANDONMENT OF BIMETALLISM[1] AND RESULTS OF THE CHANGE

In December 1871, Germany, where there had previously existed a silver standard, took steps towards the establishment of a gold standard, and completed the operation in July 1873. She was followed by Denmark, Sweden and Norway, and later by Holland. In 1874, the Latin Union—France, Belgium, Switzerland, and Italy—suspended the free coinage of silver, and for the first time gold and silver began to be used as standard money in the civilised world without any effective tie between them.

Whether the statesmen who initiated and carried out these changes acted wisely in the interests of their respective countries is a matter on which there may be a difference of opinion, but what is quite certain is that they did not foresee all the consequences of their action.

[1] The awkward word Bimetallism may be taken to denote the use at a fixed ratio of gold and silver in unlimited quantities as the Medium of Exchange.

In 1867 the British Government suggested to France, in connection with a proposal for a coinage that would be legal tender in both countries, that she should give up the Bimetallic and adopt the single gold standard. It will be obvious that the British Government at that time could not have had the slightest idea of the possible consequences of this change and of its effects on the finances of the Government of India.

In 1872, Professor Cairnes wrote as follows:—

"I may now say (1872) that I am disposed to assign much less importance to this question of a change in the monetary standard of India than I did when the above passage was written.

"The reasoning assumes the probability of a serious divergence in the relative value of gold and silver, but I now believe that such a divergence is practically out of the question."

Professor Cairnes was one of the most eminent Economists of the day, and if he could be so far mistaken in regard to the relative value of gold and silver in the future, we may be certain that the politicians of that time had not formed a sounder judgment. It is, in fact, beyond doubt that the men who brought about the change in the world's Standard of Value had not adequately realised the consequences of their action, even if they had ever considered the question of the future relative value of

gold and silver and the possible results of the divergence in value.

From 1871 to 1876, the gold price of silver, and the Indian Exchange on London fell steadily and largely, and in March 1876 a Select committee of the House of Commons was appointed to consider and "report upon the causes of the depreciation of the price of silver, and the effects of such depreciation upon the exchange between India and England."

I desire to draw special attention to the terms of the reference to the Committee. It mentioned the "depreciation of the price of silver" and by this phrase was evidently meant the "fall in the gold price of silver." The use of the expression "depreciation of the price" conveyed the suggestion that it was silver that had altered in value and that gold was unchanged.[1]

The use of the expression "effects of such depreciation upon the exchange between India

[1] If an Indian merchant, accustomed to buy and sell gold for silver rupees, had had the drawing of the reference, he would no doubt have written "the appreciation of the price of gold" instead of the "depreciation of the price of silver." The late General Keatinge, V.C., informed me that when he was Commissioner in Assam he had an interview with an Indian merchant and mentioned to him how serious the fall in the value of the rupee was. The merchant was surprised and said he heard from his agents in Calcutta every week and none of them had said anything about the fall in the value of the rupee. After a pause he added: "But they mentioned the rise in the price of gold, and perhaps that may be what you are thinking of." The correct phrase to have used would have been either "the fall in the gold price of silver" or "the rise in the silver price of gold."

and England," conveyed the further suggestion that it was the fall in the gold price of silver that caused the fall in exchange. No doubt the fall in the exchange and the fall in the gold price of silver did, and must, proceed *pari passu*, but it would, in my opinion, have been more accurate to put the fall in the exchange as the cause, and not the effect of the fall in the gold price of silver. At any rate, it ought not to have been assumed that it was the fall in the price of silver that caused the fall in the Indian Exchange.

Mr. Goschen (afterwards Lord Goschen) was Chairman of that Committee, and it will be admitted that no more competent Chairman could have been found.

The Committee, influenced no doubt by the terms of the reference as well as by the inveterate habit which leads all people to treat their own Standard as invariable in value, dealt with the question simply as if it was one of increased supply of silver and reduced demand for it, gold being assumed to be the Standard by which all things must be measured. Working on this basis, they carefully ascertained and set forth the facts of the case, avoiding as far as possible the expression of doubtful or speculative opinions. But, towards the close of their report, they made the following remarks which indicate that they to some extent recognised the serious con-

sequences that might result from a disturbance of the relations between gold and silver, two metals which from time immemorial had been used as the Media of Exchange and as Standards of Value:

"Your Committee on this point would simply remark that if effect should be given to the policy of substituting gold for silver, wherever it is possible, and giving gold for the sake of its advantages in international commerce, the preference even among populations where habits and customs are in favour of silver, and thus displacing silver from the position (which it has always occupied) of doing the work of the currency over at least as large an area as gold, no possible limits could possibly be assigned to the further fall in its value which would inevitably take place: but your Committee are bound to refrain from giving any opinion on the expediency of such a policy, or the necessity for its adoption."

It will be observed that the Committee contemplated simply a fall in the value of silver, and said nothing as to any further rise in the value of gold, though they were dealing with a cause which must necessarily produce this two-fold effect.

Among the witnesses examined by the Committee was Mr. Walter Bagehot, Editor of the *Economist*, and justly regarded as one of the

first authorities of the day on all questions connected with money and currency.

Even Mr. Bagehot appears to have taken the view that the change was in silver only, and he held that the fall in the exchange with India and other countries using the silver standard, by stimulating exports from these countries and restricting imports into them, would create a balance of trade in their favour which could only be liquidated by sending them large quantities of silver, that silver prices would consequently rise, and that, as these countries possessed a silver currency of enormous magnitude, the quantity of silver required to raise prices in India to even a moderate extent would be very great, and equilibrium would be re-established without, as he thought, any very great and permanent change in the relative value of gold and silver.

The argument he used was sound if it were the fact that the change in the relative value of gold and silver was due to an increased production of, and reduced demand for, silver outside the countries which still had a silver standard *and to no other cause of appreciable weight*, but was not sound if the change was due wholly or largely to causes which he failed to take into account.

His forecast was very soon proved to be defective to say the least. Imports of silver into

India fell off for the time being instead of increasing; silver prices did not rise; on the contrary a remarkable fall in the gold prices of practically all the most important commodities was experienced.

Mr. Bagehot unfortunately died in 1877, but had not abandoned the hope that matters might right themselves in the manner he had suggested, for in April, 1877, he wrote as follows with reference to a proposal to change the Indian standard from silver to gold:—

"As yet no one can prove that the permanent value of silver—whether in relation to gold or to commodities at large—will change so much as to render any alterations necessary."

His death at that particular time was almost a public calamity. That he was acquiring a firmer grasp of the real nature of the problem which had arisen is shown by the following extract from an article by him which appeared in the *Economist* of Sept. 21st, 1876.

"The cardinal present novelty is that silver and gold are, in relation to one another, simply commodities. Until now they have not been so. A very great part of the world adhered to the bimetallic system which made both gold and silver legal tender, and which established a fixed relation between them. In consequence, whenever the value of the two metals altered, these

countries acted as equalising machines. They took the metal which fell; they sold the metal which rose, and thus the relative value of the two was kept at its old point. There is no great country now really acting on this system. The Latin Union, it is true, adhere to the name, but they have abandoned the thing. As they do not allow silver to be coined except in limited quantities, they have no longer an equalising action: they no longer receive the depreciated or part with the appreciated metal, and, therefore, the two metals now exchange for one another just as commodities.

"The gold price of silver is now—like the gold price of tin—left practically for the first time in history without regulation and free from the manipulation of Governments."

The large and general fall in the gold price of commodities which was experienced, accompanied as it was by great economic depression, soon attracted attention.

In January, 1879, Mr. (afterwards Sir Robert) Giffen read a paper before the Statistical Society in which he dealt with the question of the fall in the gold prices of commodities. He came to the conclusion that the fall was largely due to greatly increased demands for gold in recent years and to an actual "insufficiency of the current supply of gold for the current demands of gold-using countries." It is only fair to state that although Mr. Giffen deprecated any action

that might have the effect of increasing the demand for gold, he did not look upon the appreciation of gold with the same apprehension that some other authorities expressed.

In April, 1883, Lord Goschen in a paper which he read before the Institute of Bankers, carried somewhat further the line of argument adopted by Mr. Giffen.

On the other hand, it was contended by eminent authorities that the fall in prices was due to increased and cheaper production, to the opening up of new countries, to increased facilities for transport and the reduction of freights, as well as to increased industrial competition which tended to reduce profits.

Whatever the causes of the general fall in gold prices might be, it was accompanied by a severe and long continued trade depression in countries using the gold standard, and in 1885 a Royal Commission was appointed in England to inquire into and report upon the extent, nature, and probable causes of the depression prevailing in various branches of trade and industry.

This Commission made its final report in December 1886, and while enumerating a number of important considerations, having no connection with the Standard of Value, which appeared to account (to a large extent at any rate) for the fall in prices, and depression in trade

and industry, it added the following remarks (paragraph 72):—

"We expressed in our third report the opinion that this fall in prices, so far as it has been caused by an appreciation of the standard of value, was a matter deserving of the most serious independent enquiry; and we do not, therefore, think it necessary to investigate at length the causes which have brought it about. But we desire to give it a leading place in the enumeration of the influences which have tended to produce the present depression."

As a result of this recommendation a Royal Commission was appointed in 1886 "to enquire into the recent changes in the relative values of the precious metals, shown by the decrease in the gold price of silver." That Commission was really a Tribunal appointed to examine into the arguments for and against Bimetallism, and like most Royal Commissions, it was composed to a large extent of members who, though no doubt open to arguments that were of a convincing nature, had already made up their minds, provisionally, on one side or the other.

The tedious nature of the Bimetallic Controversy and the failure to arrive at definite conclusions, were largely due to the fact that the meanings of the terms employed were never defined, and that the general laws which regulate the working of the Standard of Value were

not determined beforehand. The most generally accepted doctrines of Political Economy were liable to be thrown over by disputants when they found them inconvenient, and, as the controversy proceeded, fresh issues on fundamental questions were continually being raised. As these issues could not be authoritatively determined, they gave rise to prolonged discussion without leading to agreement.

Difficulties of this nature are experienced in all controversies regarding the Currency and the Standard of Value when questions of immediate practical importance are under discussion, because many men take part in them who have had no previous training in such matters nor given any special attention to the subject. As the present work is written for the instruction of the general public, or rather for that small section of it which may take an interest in questions affecting the Standard of Value, and is not specially intended for academic experts in Economics, it will, therefore, be convenient to offer certain preliminary remarks on "Value," "The Quantity Theory of Money," "The Relation between Prices and the Volume of Trade," "The Relation between Money, Credit and Prices," the proposition that "All Trade though carried on through a Medium of Exchange is, in Essence, Barter," "Alterations in the Relative Value of Different Monetary Standards," "The Formation of

World Prices," and "Appreciation of the Standard of Value." The reader who has formed sound and clear ideas on these subjects will find his study of monetary problems greatly facilitated.

CHAPTER IV

VALUE

THE meaning of the word "Value" as ordinarily used is indefinite. When used in connection with the Currency, and in all works on Political Economy, it means, or should mean, "Value in Exchange." If there was only one article in the world it would have no value in this sense, for there would be nothing against which it could be exchanged. If there was any number of articles, they would still have no exchange value unless there existed human beings who possessed them and were willing to exchange them with each other.

As value is taken to mean simply value in exchange it necessarily follows that if the value of A alters in relation to B, the value of B in relation to A alters at the same time, to the same degree, and in the opposite direction. If a quarter of wheat exchanges for two quarters of oats, the value of a quarter of wheat is two quarters of oats, and the value of one quarter of oats is half a quarter of wheat. If, subsequently, wheat becomes relatively scarcer and one quarter of wheat exchanges for three quarters of oats, it necessarily follows that the value of oats measured in wheat has altered just as much as

the value of wheat measured in oats. A quarter of wheat is now worth three quarters of oats instead of being worth two quarters, and a quarter of oats has similarly become worth one third of a quarter of wheat instead of being worth half a quarter.

In the sense in which Economists use the word there is no such thing as inherent or intrinsic value which an article can possess and which is independent of the rate at which it exchanges for other articles.

I find it necessary to lay stress on this point, because we are all accustomed to use, and speak of, the Standard of Value as if it possessed an intrinsic value, independent of the rise or fall in the prices of commodities. Though this mode of expression is convenient in ordinary business, and generally quite harmless, it gives rise to much fallacious reasoning when we come to deal with the currency question, and ought to use precise language.

If a quarter of wheat costs sixty shillings, we say that the value of a quarter of wheat is three golden sovereigns. If the price falls to forty shillings, we say its value is two sovereigns. Most persons would say that the fall in price showed no change in the value of gold, that gold continued of the same value, and that wheat had fallen in price simply because there was a larger supply of that article or a reduced demand for it. For ordinary purposes that state-

ment would be practically correct, for the price of no other article might have changed, and consequently gold would have remained of the same value in regard to all commodities except wheat: in the case of wheat, however, its value would have changed, though the change in value was due to causes affecting the supply of, or demand for, wheat.

We are so accustomed to think of the Standard of Value as invariable in value—a sort of yard measure—that, unless we are on our guard, we are very likely to carry the habit with us into discussions on the currency question and with unfortunate results. Instances could be given of men of the greatest eminence in both Politics and Finance having fallen into this error, and not merely in ordinary conversation but in deliberate expressions of opinion on questions of monetary policy. As we shall see hereafter, the value of the monetary standard varies with alterations in the Quantity of Money, as well as with alterations in the amount of work it has to do, this amount of work being largely affected by the use of credit, and especially by the development of credit due to the extension of Banking. As both the Quantity of Money and the amount of work it has to do are always varying, it will be obvious that a Monetary Standard which can be used to measure values as a metre measures length or a pound measures weight cannot exist.

CHAPTER V

THE QUANTITY THEORY OF MONEY

THE influence on prices of changes in the supply of, and demand for, commodities is immediate and obvious. The influence on prices of changes in the Quantity of Money is indirect, generally requires time to produce its effect, and the *modus operandi* is obscure.

For these reasons it is essential to consider in what way the supply of Money affects prices, and for the purposes of this examination we may conveniently assume the Standard of Value to be gold.

The Quantity Theory may be stated, briefly, in the following terms:—

"Other things being equal, the level of prices is proportionate to the Quantity of Money."

As I have assumed that we are dealing with a country that has a gold standard, we may take Money in this case to mean gold coins of full legal tender. We may also treat as Money

uncoined gold, intended to be used as Money and which could be coined at any moment.

Money might be defined in a somewhat different way, but so long as we retain the condition that other things must be equal, the exact form of the definition is not of great importance.

I had imagined that the Quantity Theory as above stated was one of the best established principles of Political Economy, and was surprised when a friend of mine, who had begun to give some attention to questions connected with the Currency, informed me that he did not believe in the Quantity Theory, that he doubted if it contained any truth at all, and in any case was subject to so many qualifications in the present day as to be worthless for all practical purposes. He added that he looked forward to the time when, by the improvement and development of credit, England would need only one sovereign, which would be "kept in the Mint as a measure." I asked him what would happen in such event if somebody presented a cheque for five pounds at the Bank of England and asked for payment in sovereigns? To this question he made no reply, but I doubt if my argument against the extreme view which he held had much effect. In a work on the Currency which he subsequently published there is no mention of the solitary sovereign which was to support the British system of credit, but there

are distinct suggestions that Banks throughout the world might be able to reduce their gold reserves indefinitely or even do without them altogether.

Since the date of the conversation to which I have referred, I have often examined the arguments on which the Quantity Theory is based, and my proposals for carrying out the change in the Indian Standard of Value from silver to gold were based on my belief in the soundness of that Theory, and I have never discovered any good, or even plausible, ground for rejecting it as a statement of a general law. I fully admit that other things never are equal, and that we cannot expect to find, and never do find, that prices move up or down in exact proportion to the Quantity of Money, but an increase or diminution in the Quantity of Money always acts in the direction of proportionately raising or lowering prices, as the case may be, though the effect may be obscured or counteracted by other causes.

In the attacks on the soundness of the Quantity Theory which I have seen, the limiting condition "other things being equal" is generally omitted, and if this is done, it can easily be shown that in actual life the rise and fall in the average level of prices is not, and cannot be, exactly proportional to the Quantity of Money.

Rival theories have also been put forward, but I do not think they have been widely accepted.

According to one of these theories, gold is only used as a sort of nominal measure of value for stating the proportions in which commodities will exchange for commodities. The quantity of gold available as money is consequently of no importance. It is said that we only make use of its value as a measure, and the supporters of this theory seem to think that the metal called gold might be dispensed with altogether so far as the business of exchanging commodities for commodities is concerned, its value being retained as an abstract measure of the ratio in which these commodities exchange for each other.[1]

According to the other theory, supported, and (I believe) invented, by the late Mr. Henry Dunning Macleod, the average level of prices is proportionate to what he calls the total Circulating Medium which is comprised of both credit and gold. The amount of credit, according to him, is enormously in excess of the quantity of gold, but, quantity for quantity, they have exactly the same effect on prices: on this assumption any addition to the quantity of gold, or any reduction of it, has an extremely trifling effect on prices. General prices, according to

[1] The frivolous reader, if such a person ever reads a book on *The Standard of Value,* will be reminded of the Cat in *Alice in Wonderland* which gradually faded away, leaving its Grin behind. The two phenomena are of precisely the same class, and the one is as likely to occur as the other.

this theory, rise and fall, even when other things are equal, not in proportion to the change in the Quantity of Money, but in proportion to the change in the total Circulating Medium, which is composed of credit and money.

I shall deal with these theories at a later stage, and in the first instance will confine myself to noticing some of the arguments on which my belief in the soundness of the Quantity Theory is based.

In the British Isles gold is the Standard of Value and is used both in our daily transactions, passing from hand to hand in small amounts, and also as a reserve in the Banks to support our system of credit.

Let us suppose that all prices and wages in these islands are increased five-fold. In that case, the man who carries a couple of sovereigns in his pocket to meet casual expenditure must increase the amount to ten sovereigns and so on.

The amount paid in wages, so far as it is paid in gold, will require five times as much gold as before. The reserves of the Banks are proportioned to the magnitude of their deposits and the other liabilities which they may be called upon to meet,[1]

[1] It is probable that the reserves of the London Banks bear as small a proportion to their liabilities at call and short notice as those of any other Banks in the world. The other London Banks depend, in the last resource, on the Bank of England, but the following table, which I have extracted, at hazard, from *The Times*, shows that even in London some proportion is held to be necessary between the amount of cash and the amount of deposits, and that

and banking could not be carried on if a due proportion were not observed somewhere,

the proportion does not vary much in the different Banks, the lowest being 13·6 per cent. and the highest 17·4 per cent.

Banks' Monthly Statements for November, 1911.

Banks.	1. Deposits, &c.	2. Acceptances, &c.	3. Cash in hand and at Bank of England.	4. Cash at Call and Notice.	5. Proportion of Col. 3 to Col. 1.	6. Proportion of Col. 3 to Cols. 1 & 2.
	£	£	£	£	p.c.	p.c.
Cap. & C.	38,806,360	878,905	6,401,857	5,780,922	16·5	16·1
Lloyds . .	84,638,262	6,316,037	13,350,156	8,059,912	15·8	14·7
Lon. Joint	33,572,086	2,390,012	4,899,826	5,797,305	14·6	13·6
L.C. & W.*	80,952,094	4,720,283	10,987,492	9,307,360	13·6	12·8
L. City . .	77,233,898	6,835,314	12,518,032	9,619,186	16·2	14·9
L. & S.W.	18,256,956	763,479	2,751,546	2,218,319	15·1	14·5
National .	13,302,294	1,527,399	1,956,146	2,210,219	14·7	13·2
Nat. Prov.	62,329,162	1,051,608	9,509,829	4,013,524	15·3	15·0
Parr's . .	39,298,370	4,720,158	6,818,621	7,978,919	17·4	15·5
Union . .	40,534,757	4,037,703	5,955,561	7,699,850	14·7	13·4
Williams	14,617,052	781,514	2,003,586	1,666,027	13·7	13·0
Total . .	503,541,291	34,022,412	77,152,652	64,351,543	15·3	14·4
A year ago	476,390,854	33,446,941	74,949,440	60,185,379	15·7	14·7

Daily average of cash in hand and at Bank of England, £10,255,737.

The reader will observe that deposits in the Bank of England and money lent at Call and at Short Notice are described as Cash. They are so called, apparently, because the Banks hold that such money is as readily available as if it really were held in cash, and no doubt this is the case under ordinary conditions. It is only in the Bank of England that the proportion between actual cash and liabilities becomes of primary importance, and is treated accordingly.

In certain Colonial Banks, the proportion of actual cash to liabilities at call appears never to be allowed to fall below about 30 per cent.

between cash and probable demands for cash. Under the conditions of a five-fold rise in prices which we have assumed, the amounts, stated in pounds sterling, of all Bills of Exchange, and of all Loans and Deposits, would be increased five-fold, and the Banks' reserves would require ordinarily to be increased in proportion, and must be increased in proportion unless some change in the mode of doing business occurred simultaneously.

It is possible that under the new conditions the Banks might hold a smaller reserve in proportion to their liabilities, but I see no reason why they should, and they are just as likely to hold a larger proportion. At any rate, if they hold either a larger or smaller proportion than before, "other things" cease to be the same, and the Quantity Theory as already stated is unaffected.

All prices and wages, therefore, could only rise in these islands above their present level, other things being equal, if there was a proportionate increase of gold in use as money, whether such money be used to meet casual and occasional payments or held as reserves in the Banks.

It will be equally obvious that if prices rose to five times their present amount and the quantity of gold necessary to maintain them at that level fell off, prices and wages must fall. If they did not fall, the quantity of gold passing from hand

to hand or used as till-money must be the same as before, and the Banks must discount the same amount in Bills, and make as many loans in other ways as before. This, as I have shown, they would be unable to do if the supply of gold money was reduced, because their reserves would have fallen below what they considered the safe limit.[1]

I have now shown that, other things being equal, prices cannot rise all round without a proportionate increase of money, and that if the supply of money be reduced they must fall in proportion.

It remains to show that an increase in the quantity of money raises prices, and is used up in raising prices, as far as it will go in that direction.

When there is an increased supply of gold, the reserves of the Banks increase beyond that proportion to their Deposits and other Liabilities which the Bankers consider necessary.

No Banker is satisfied when he sees gold lying idle in his strong room. He wishes to utilise it

[1] An eminent London Banker once said before a Royal Commission that he could not believe in a "scarcity" of gold, because, if there were such a thing, some method of economising gold would at once be adopted, so as to get rid of the scarcity. I shall make some remarks at a later stage on the use of the word "scarcity" in this connection, but for the present it will suffice to say that, as there is always a profit to be made by economising the use of gold, I am quite sure the Banker in question would have adopted at once any means which would have had that effect if he had been able to do so, and that he would not have waited till an actual "scarcity" had declared itself.

in his business and thereby increase his profit, and he does so by reducing the rate of discount and making loans at a somewhat lower rate. The amount of credit is increased and an influence comes into operation which tends to raise certain prices.

Relative prices, or the relations in which prices stand to each other, are dependent on what I may call economic forces, and are not affected by the Standard of Value. If the price of a quarter of wheat is twice as great as the price of a quarter of oats when the Standard of Value is gold, it will also be twice as great under a Silver Standard.

If, therefore, the prices of certain articles rise because there is an abundant supply of credit, the prices of others tend to rise, also, from economic causes. The necessary money exists *ex hypothesi* to meet this rise, and owing to the additional demand for money created by the rise in prices, the proportion between his Liabilities and his Reserve which the Banker thinks safe is reached in a longer or shorter time.

It should be noticed that an increase in the Quantity of Money does not cause all prices to rise simultaneously or to rise to exactly the same extent. Apart from the fact that relative prices are always changing, it must be recollected that the prices of some articles are fixed by contracts extending over a consider-

able period, that others are fixed by law or by custom, and that when gold enters into both sides of the exchange the variation in price is not in exact proportion to the Quantity of Money. For example the price of gold bonds or of gold ornaments would not be affected by a change in the Quantity of Money, in the same way as the price of wheat or maize. But as the whole of the additional supply of money must be used up, and can only be used up in increasing prices, it follows that if some prices rise less than in proportion to the Quantity of Money other prices must rise more, so that it is the average price level which is proportionate to the Quantity of Money.

The prices which respond soonest, and to the greatest extent, to any increase or diminution in the quantity of money are the prices of those articles which are dealt with in the widest and most open markets, these being the prices of the main articles of production and consumption and especially of those of them which enter largely into the international trade of the world.

To sum up, if there is an additional supply of gold available as money, the Bankers into whose hands it comes will not allow it to lie idle, and there is no way in which it can be used up, except by increasing prices and wages.

It has sometimes been said that it is used up "in creating new business" and does not affect

prices. "New business" is a useful phrase for those who hold this view for it is difficult to say exactly what it means.

An additional supply of gold does not increase the number of workers, nor add to the efficiency or number of the tools or machines which they use in their work, nor increase the total quantity of food available for them, and will have no practical effect of any sort, in the first instance, except to broaden the basis on which credit rests and enable a larger superstructure of credit to be erected thereon.

A country suffers from an undue reduction of the quantity of money, and no doubt it also suffers from an undue increase of money. Production will be facilitated, and the distribution of wealth will be more equitable if the happy mean is attained, but when the plan of increasing wealth by inflating the currency is tried it invariably ends in failure.

Statesmen, when pressed by financial difficulties, have sometimes issued great quantities of inconvertible paper, and some of them may even have believed that their policy was beneficial to their country, as well as convenient for themselves for the time being, but the experiment has always ended in disaster. Prices in such cases have risen as the Quantity of Money was increased, and the disturbance of values thereby caused, coupled with the uncertainty as to the

future which necessarily arises, has impeded industry of all kinds and produced universal distress.

The law which regulates the relation between money and prices is perfectly simple and may be stated in the following terms :—

Relative prices express the ratio in which commodities will exchange against commodities, are independent of the Standard of Value, and are regulated by economic causes, the phrase economic causes being used with the object of excluding the influence of the Standard of Value. The average level of all prices is dependent, other things being equal, on the Quantity of Money, and is so adjusted from time to time that the supply of money shall be sufficient, and not more than sufficient, to maintain that level.

The adjustment can never be mathematically accurate. At times the level of prices may rise in particular places somewhat above the average which the supply of money is sufficient to maintain, and at other times may fall below it, but such a state of things leads to a reaction, and the average level of prices always tends to become that which the supply of money is just sufficient to maintain.

It is worthy of notice that the law which regulates the general level of prices (and the general level of prices *is* the value of gold) is

exactly the same as that which regulates the price or value of every commodity. If there is a large supply of wheat its price falls as compared with the prices of other articles; if there is a short supply the price rises. It is always the object of those who hold wheat to sell the whole of their supply, and to sell it at the highest price which it will fetch. The price is so adjusted from time to time that the whole of the wheat is sold, there being neither a surplus which is wasted nor an absolute exhaustion of supply before a new crop comes on the market. In other words the supply is adjusted to the demand by raising or lowering the price as may from time to time seem necessary.

It will thus be seen that every commodity, as well as that special commodity which is used as the Standard of Value, is subject to precisely the same law. The relative price of each commodity is fixed at that figure which will just enable the whole of it to be used up, there being neither a surplus nor a deficiency. The value of gold is determined in exactly the same way.

It has been said that in the years after 1873 there was a "positive scarcity" of gold money. This was not a happy phrase to use in connection with the Standard of Value.

It appears to suggest that prices may keep up

while people cannot find money to pay their debts. Something of this sort may take place for a time, and as regards prices in a particular locality or country, caused by a financial crisis due to a local failure of credit, but even in this case the scarcity is only temporary. As a rule the rise and fall of prices is adjusted to the supply of money quietly and imperceptibly. Every man who has a credit at his Banker's, depends on his Banker to keep a sufficient supply of gold. The Banker watches his own balance, and the balances at all these Banks would form the centre of the financial system. The movements and the supply of gold are closely scanned by the Central or Chief Banks, the movements of the Foreign Exchanges are always under observation, and arrangements are made, even before any special demand for gold sets in, which have the effect of adjusting the amount of credit to the available supply of gold.

The penalty for absolute failure in this respect is Bankruptcy, and for partial failure a weakening of confidence in the Bank, and confidence on the part of the public is the breath of life to a Bank.

The primary and paramount duty of every Banker is to preserve a safe working margin between his liabilities and his resources, and gold, is the basis on which the whole Banking system ultimately rests; the further duty rests on the Banker of seeing that he does not throw away

a legitimate profit by maintaining a reserve of greater magnitude than is really required.

A particular Bank may depend on its having a claim against another Bank, or on its having money lent on short notice which it can call in quickly, but there must always be some Bank or Institution which makes it its duty to see that a proper balance is preserved between probable demands for gold and gold actually on hand.

Prices adjust themselves to the supply of money in ordinary times as quietly and imperceptibly as the surface of a pond adjusts itself to the supply of water. It has occasionally been said that there was not enough money to circulate commodities, and at times people have said that what the world was suffering from was a plethora of money which was not wanted by the Currency and could not be put into circulation. Both statements are equally inaccurate. There is always enough money to "circulate" commodities, and any quantity of money can be used as circulating medium so long as the money is made of the metal which is the Standard of Value. The variable factor is the scale of prices at which commodities shall be "circulated."—Relative prices are independent of the Standard of Value and represent the ratios in which commodities exchange among themselves. The actual gold price of any commodity represents the ratio in which that commodity exchanges for gold, and

both gold and commodities are subject to the general law that the whole supply must be used, and that it shall be used at the highest exchange value that can be obtained for it.[1]

[1] The reader who wishes for further information on the subject should consult Professor Irving Fisher's work on *The Purchasing Power of Money*, and especially Chapters II and VIII, in which he will find a much fuller and more scientific examination of the question.

CHAPTER VI

THE RELATION BETWEEN PRICES AND THE VOLUME OF TRADE

It is sometimes said that the value of gold, like the value of ordinary commodities, must be determined by the law of Demand and Supply. No doubt this is the case, but it is not so easy to trace the working of the law of Demand and Supply in the case of the Standard of Value, as it is in the case of ordinary commodities.

In the case of ordinary commodities we can say that if a certain quantity is put on the market there is a definite price at which that quantity will be purchased. If the quantity is increased the price falls; if it is reduced the price rises. But the fall or rise in price is not proportionate to the increase or decrease in quantity. As a rule an increase in quantity will cause a more than proportionate fall in price and *vice versâ*. This is due to the fact that the desire of human beings for most commodities is

limited. The world consumes normally a certain quantity of tea or coffee; if the price falls it will consume more, if it rises it will consume less, but human beings could not be induced to buy more than a certain quantity of tea or coffee at any price. Many persons would neither drink more nor less tea or coffee, no matter to what extent the price of tea or coffee might fall or rise.

A different law applies to the case of money. Anybody who has anything to exchange is willing to part with it for money, because he knows that he can himself obtain anything that is in the market by offering money for it. There is consequently no such check to demand for money when its quantity increases as there is in the case of ordinary commodities, and we might infer from this fact alone that its value varies in proportion with its quantity, other things being equal. Its value must vary in some way and according to some law with an increase or decrease in quantity, and it is difficult to see what other law is possible except variation in direct proportion to quantity if other things are equal. Is it conceivable, for instance, that prices should vary as the square of the quantity of money or as the square root of that quantity? Or that the variation should be according to one law at one time or stage and according to another law at another time or stage, other things being always supposed to be equal?

The supply of money is not the yearly production of gold. It is the total supply which at any particular time is available as money.

The total supply of gold available as money is used for the purpose of effecting the exchange of commodities for commodities, and it is used for this purpose either by being passed from hand to hand in actual exchange or by being employed as Banking Reserves.

Since money which is not hoarded is used to effect exchanges of commodities, since all money can be so used, since self-interest ensures that it shall be so used, and since the exchange of commodities for commodities takes place as if under a system of barter and is independent of the particular Medium of Exchange which happens to be used, it follows as a matter of course that prices must vary inversely as the Quantity of Commodities and the number of times they are exchanged for money, other things being equal.

The Quantity of Commodities *plus* the number of exchanges may be described as the Volume of Trade.

It will be obvious that the line of argument which leads to the conclusion that prices are inversely proportionate to the Quantity of Commodities leads also to the conclusion that prices are directly proportionate to the Quantity of Money. The one proposition is the comple-

ment of the other and the condition that other things are equal applies to both cases.

Among the "other things" which may or may not be equal is the efficiency of money as a medium of exchange. The efficiency of money as a medium of exchange alters as its rapidity of circulation changes or as economy in the use of money is effected either by the extension of Banking or such alteration of the conditions affecting Banking as lowers the proportion of gold which must be held in proportion to liabilities.

In whatever way we examine the question of the relation between Prices, the Quantity of Money and the Volume of Trade we always come back to the same general principles:—

(1) Prices and wages bear such relations to each other as economic considerations require, and these relations are independent of the Standard of Value.

(2) Other things being equal, the level of prices and wages is proportionate to the Quantity of Money.

(3) Other things being equal, the level of prices and wages is inversely proportionate to the Volume of Trade.

The Standard of Value is not like the Standard of Weight or Length. It cannot measure any quantity of commodities without being itself affected; its value is affected by the mere fact that there are more commodities to be

exchanged and more exchanges to be made. It is equally affected by the fact that there is more gold against which commodities must be exchanged. The market prices of all commodities do not simply rise or fall according as the quantity of each of them put on the market changes. The first effect when an increased quantity of any article is offered for sale is that its price falls, but if, from economic causes, the prices of a number of articles fall without a proportionate increase in the quantity of commodities a less amount of money is required to effect the necessary exchanges, and this necessarily means that a larger amount is available for other exchanges and that the price of other commodities will rise. The new conditions of exchange between commodities due to the fact that some of them are produced more cheaply is brought about not by a simple fall in the prices of those that are produced more cheaply, but by a fall in the price of those commodities and a slight rise in the prices of other commodities.

If the efficiency of labour were doubled and the wage-earners chose to work only half-time, the quantity of commodities produced would remain the same as before; but though the real cost of production had been reduced one-half, prices would not fall to one-half of their former amount. Prices and wages would remain the

same as before, and the wage-earners would reap the advantage of their increased efficiency in the form of shorter hours of work.

If we assume that the efficiency of labour is doubled, that the wage-earners work as many hours as before, and that the quantity of commodities produced is doubled, we shall find, if the Quantity of Money remains the same, that there is a great fall in the prices of commodities, and some alteration in wages, the combined effect of the two changes giving the wage-earners the benefits of their increased efficiency. If, under the conditions we have just assumed, the supply of money were doubled as well as the supply of commodities, we should find that the prices of commodities remained the same as before and that at the same time the rate of wages was doubled.

Again, let it be assumed that the population has doubled and also the Quantity of Commodities produced, other things remaining the same. Under such conditions it will be obvious that the effect on money, wages, and prices will be just the same as if the Quantity of Money had been halved while the population and the Quantity of Commodities had remained the same; in other words, prices and wages would fall by 50 per cent. If prices and wages remained the same when the population and the Quantity of Commodities were doubled, the amount of money passing from hand to hand would require to be doubled and

the reserves of the Banks must be doubled to balance the increase in Liabilities.

The condition "other things being equal" is very important, and all that we are entitled to say beforehand is that an increase in the Quantity of Money exercises an influence in the direction of lowering its value in exchange for commodities, that an increase in the Quantity of Commodities exercises an influence in the direction of raising the value of Money in exchange for commodities, that a diminution in either case has the opposite effect, and that the change will always be proportionate to the increase or decrease in quantity "if other things are equal," it being recognised that in practical life other things never are equal, and that the question whether there is an increase or decrease in the Purchasing Power of Money at any particular time must be decided by examination of the facts.

CHAPTER VII

THE RELATION BETWEEN MONEY, CREDIT AND PRICES

WE have seen in the last two Chapters that there is no ground for doubting the soundness of the Quantity Theory of Money, but there have been, and still may be, persons who hold that since the development of the system of credit the Quantity Theory of Money has ceased to be of any practical value. Modern business, they allege, is transacted by setting off one transaction against another, and gold has ceased to be of any appreciable importance, and will be of still less importance as the system of credit improves. So far as I am aware, this view is not accepted by the most eminent Economists, and I would not think it necessary to notice it specially if it had not been put forward in the Bimetallic Controversy and if reliance on it had not had a considerable influence in causing certain conclusions to be accepted.

The late Lord Farrer dealt with the question of the relation between prices and gold in his "Studies in Currency" published in 1898 and

takes the view I have just indicated as to the slight importance in modern times of the Quantity of Money.

He says:—

> "This question must not be dealt with as if it could be answered once for all by a simple, absolute, and conclusive formula. It is an answer which depends upon the different modes and conditions of doing business which must vary with these modes and conditions. The proper form of putting the question is therefore:—*What in the present state of business is the real connection between gold and prices?* Or to put it in another form: *What is it that we call Money? What is it that we pay with? What creates it? What limits it?*

The answer which the supporters of the Quantity Theory of Money give is not a simple, absolute, and conclusive formula. They say, "Other things being equal, prices rise and fall in proportion to the Quantity of Money," and they intend that the limitation expressed by the phrase, "Other things being equal" shall cover alterations in the modes and conditions of doing business, as well as fluctuations in the quantity of business.

Lord Farrer also calls attention to the fact that the stocks of money in different countries are not in proportion to their wealth and trade, but I am not aware that any supporter of the

Quantity Theory ever said they were, or was ignorant of the fact that the Quantity of Money in a country did not bear a fixed proportion either to its wealth or its trade.

The stocks of money in different countries are not only not in proportion to their wealth and trade, but the stock of money in any particular country does not vary from time to time in proportion to its wealth and trade.

Each country has its own mode of doing business, and even in the same country the mode of doing business varies with the course of time and from a variety of causes.

In any case, I am unable to see what bearing the statements made by Lord Farrer have upon the question at issue except as illustrating the fact that in different countries "other things are not equal," just as they are "not equal" in the same country at different times. It is certainly true that the Quantity of Money in different countries may not be, and generally is not, proportionate to their wealth and trade, but it does not follow that if prices were twice as high in any one country at any particular time, double the amount of gold would not be required.

Lord Farrer seems to have contemplated, if he would not have welcomed, the total, or almost the total, disappearance of gold. He says:—

"Credit is not simply a means of using less gold. 'Credit' or 'Debt' is a substitute for gold as a Circulating Medium, which has in some places

almost displaced its principal, and which may displace it entirely, or almost entirely, as nations advance in commercial aptitude. It is a substitute not only of infinitely greater power than the instrument it displaces, but of infinitely greater expansibility. There is no limit to its expansion except demand."

"Gold forms an infinitesimal proportion of 'money' and a small proportion of currency, and this proportion grows less. We pay with credit, and only in the last resource with money."

I find it impossible to determine precisely what opinion Lord Farrer really held as to the influence of the Quantity of Money on prices. Many of his arguments are directed to showing that other things never are equal, and in this I entirely agree with him. But it is not necessary to the validity of the Quantity Theory that they should be equal.

At other times he speaks of gold being used in modern business as a measure of value in a way which suggests that he believed in an intrinsic or inherent value of gold by which you could measure commodities as you measure length with a foot rule.

This view is, of course, absurd, and if it had been put plainly to Lord Farrer, he would have repudiated it.

The value of gold—in other words the prices of commodities—cannot be ascertained unless gold is somewhere and in some way brought into actual exchange relation with commodities.

Wherever, and in whatever way, this is done, the value of gold is determined with relation to, at least, a certain number of commodities, and it is conceivable that when this is done the prices of all other commodities may be fixed by their economic relations to the commodities which have come into exchange relations with gold. If ten sheep exchange for one bullock, and if a bullock is the article which comes into exchange relations with gold and does actually exchange for ten sovereigns, it is easy to see that, in bargaining, the price of a sheep would be fixed at one sovereign, though a sheep was never actually exchanged for a sovereign.

But if this be the method by which general prices are fixed the Quantity Theory still holds good, for the prices of the commodities which are brought into exchange relations with gold will, other things remaining the same, rise and fall with the changes in the Quantity of Money, and that rise and fall in price will automatically affect the prices of all other commodities.

Some persons have even said that they are unable to see that gold is to any material extent brought into comparison with commodities for purposes of exchange under our present system. This view will not stand examination. Gold, apart from its use as a reserve to support credit, is still largely used in actual exchange for commodities. The ninety millions sterling or so of gold which is produced every year is really exchanged for

commodities, though we may not see the process in all cases, just as we do not see coal actually exchanged for wine, though it is by such exchange that the owner of a coal mine obtains the wine which he consumes. The persons engaged in the production of gold cannot get the commodities they require in any other way than by the exchange of gold for commodities. The twelve or fifteen [1] millions of gold which is used in the Arts every year is paid for by commodities. The gold which is hoarded is paid for by commodities. For example, the ten or fifteen millions sterling of gold which India absorbs every year is paid for in this way. The gold which moves from country to country every year forms part of the international trade, and represents an exchange of gold for commodities. Every movement of gold from one place to another represents a similar exchange, and over all buying and selling there lies the ultimate obligation that the purchaser may be called on to pay gold, and it is this condition which necessitates substantial reserves of gold even under the most perfect system of Banking.

Lord Farrer, at times, seems to have committed himself to the late Mr. Henry Dunning Macleod's Theory of the relation between prices and credit, and that Theory appears to me to be absolutely without foundation.

[1] The amount of gold used in this way in Europe and America, in the present day, may be as much as twenty millions sterling.

Mr. Macleod holds that the Circulating Medium consists of credit in its various forms and of gold, and that credit, quantity for quantity, has as much influence on prices as gold. He even goes further, and brings forward many arguments proving, in his own words, that money *is* what is termed credit.

He says:—

"Now when a person accepts money in exchange for products or services rendered, he can neither eat it, nor drink it, nor clothe himself with it, nor is it any species of economic satisfaction for the services he has done."

"He only agrees to accept it in exchange for the services he has rendered because he believes, or has confidence, that he can purchase some satisfaction that he does require at any time he pleases. Money is therefore what is termed credit."

With all deference, it seems to me that it is an abuse of language to say that money is credit. The special characteristic of money is that it is *not* credit. If Mr. Macleod's argument is correct, the man who buys anything which he does not consume himself, or obtains anything by exchange which he does not consume, obtains only a credit, and the distinction between credit and commodities would depend altogether on the intentions of the holder with regard to each commodity. A sheep would always be a credit to a vegetarian, but would be a commodity to a man who bought in order that

it might be consumed by his household. If a man buys anything with the intention of exchanging it for other things, he would, according to Mr. Macleod, receive only a credit. If he purchased it in order to eat it, he would get a commodity. The real difference between a commodity and a credit is perfectly clear, and such perversion of language as Mr. Macleod proposes, arises from, and perpetuates, confusion of thought. If I buy a thing and give the seller a promise to pay, I am not discharged from my liability to pay at some future time. If I give the seller the stipulated sum of money, I have no further liability. That is the difference between money and credit, and it is a very material one. The seller may be able to get something from some other person in exchange for the money I have given him, but whether he can or cannot do so is no affair of mine. The matter has been ended so far as I am concerned.

The non-natural meaning which he attached to money led Mr. Macleod to strange conclusions.

Thus, he asserts that "Where there is no debt, there can be no currency." As I have read this argument I know what he means, but to ninety-nine readers out of a hundred, the statement would seem meaningless.

His argument is based on the assumption that a sovereign is a promise to pay, and that if a man possesses a sovereign, other people are

indebted to him to that amount. The simple answer is that a sovereign is not a promise to pay, and though I can always get something in exchange for a sovereign, it shares the quality of exchangeability with a bullock or horse, which are certainly not promises to pay.

Mr. Macleod holds that the Circulating Medium is composed of credit in all its forms and of money, which he considers is really only one form of credit; that credit has the same effect on prices as money, quantity for quantity, and that the level of prices is determined by the total quantity of the Circulating Medium. The credit, he says, is enormously in excess of the money in these Islands. In one place he puts the amount of credit in the United Kingdom at £6,000,000,000, and the gold at £100,000,000.[1]

Credit, he says, is as effective as gold in maintaining prices, quantity for quantity. The influence of gold on prices is therefore only one sixtieth ($\frac{100,000,000}{6,000,000,000}$) part of the influence of credit on them. He consequently infers that the influence of gold on prices is very slight. In

[1] The reader will understand that I attach no value to this figure of £6,000,000,000 of credit, which, quantity for quantity, is said to have the same influence on prices as gold. I merely use Mr. Macleod's figure for the purpose of argument. Under Credit Mr. Macleod includes Bills of Exchange, Cheques, and Deposits. To add together things so different in their nature as Bills of Exchange, Cheques, Deposits, and Gold, and call the resulting figure the Circulating Medium and Measure of Value seems to me quite unjustifiable.

another place he puts the ratio of money and credit as 1 to 99 and says:—

"It is perfectly acknowledged that credit produces exactly the same effect on prices as gold. And it has been shown by authentic statistics that in modern times gold only forms about one per cent. of the circulating medium or currency. And to suppose that a variation to the small extent of a fraction of one per cent. on the amount of the circulating medium, or the measure of value, could produce the effects so popularly attributed to it is wholly beyond reason."[1]

The objection which I take to this theory of Mr. Macleod's consists in absolutely denying his assumption that gold and credit have exactly the same effect on prices, quantity for quantity, and that an increase or diminution of gold has exactly the same effect as an increase or diminution of credit to the same amount. The absurdity of the statement will be seen at once if we reflect that a withdrawal of £100,000,000

[1] It will be noticed that in this passage Mr. Macleod suggests or assumes that the amount of what he calls the Circulating Medium is the same as the Measure of Value. I think I know what he means, but it will be safer for the reader to continue to believe that our Measure of Value is gold and our monetary unit the pound sterling, which consists of so many grains of gold, rather than to adopt the view that the Measure of Value is the Circulating Medium consisting of an indefinite and fluctuating number of thousands of millions of credit, supplemented by one per cent. of gold, and that the monetary unit is (say) the one six thousand one-hundred millionth part of the nominal value, measured in pounds sterling, of what he calls the total Circulating Medium!

of credit from our Circulating Medium of £6,100,000,000, or £10,000,000,000, would have a very slight effect on prices, according to his own argument, while a withdrawal of a much smaller sum than £100,000,000 of gold would cause the whole financial and commercial system to collapse. An over-issue of inconvertible paper will produce a depreciation of the pound sterling and a rise in prices altogether in excess of the proportion which the over-issue bears to the total amount of credit as stated by Mr. Macleod. If credit has the same effect on prices as gold, quantity for quantity, it is impossible to understand why prices should have fallen after 1873 in gold standard countries where there is admitted to have been an enormous development of credit, and not fallen in silver standard countries where the development of credit is comparatively trifling.

It will be recollected that Lord Farrer expressed very much the same opinion as Mr. Macleod:—

"Credit . . . . is a substitute for gold as a circulating medium which has in some places almost displaced its principal, and which may displace it entirely, or almost entirely, as nations advance in commercial aptitude . . . . There is no limit to its expansion except demand."[1]

[1] If, as Lord Farrer says, there is no limit to the expansion of credit except demand; and if, as Mr. Macleod says, credit has the same effect upon prices as money, quantity for quantity, I see no reason why there should be any limit to the rise in prices.

All these statements overlook the fact that "credit" documents are stated in terms of pounds sterling, that is, of gold, and that if gold increases in quantity the value of gold is lowered, and the total Circulating Medium (as Mr. Macleod defines it) stated in pounds sterling is not increased by an amount equal to the increase of gold, but by that amount *plus* the effect on the total circulating medium *stated in pounds sterling* of the lowering of the value of gold due to the increase in quantity. The increase in the quantity of gold is not simply an addition to the total Circulating Medium, comprised according to Mr. Macleod of gold and credit. It is an addition to that portion of the Circulating Medium which is composed of gold, and it neither expands nor contracts the area of business in which credit is used. Its influence on credit has the effect of increasing the total amount of credit, stated in pounds sterling, in exact proportion to the decrease in the value of gold.

For example, if the total amount of gold money in the British Isles at any time is £100,000,000, and the total amount of credit £6,000,000,000, and if no change of any sort takes place except an increase of gold which doubles the quantity of money in the world and gives England £200,000,000 in gold instead of £100,000,000, I contend that credit to the extent of £12,000,000,000 can be based on that

£200,000,000 of gold just as easily as £6,000,000,000 of credit could be based on £100,000,000 of gold, and I also hold that, as it is against the interests of the Banks to hold more gold than they consider necessary to support the system of credit, they will so use the powers of issuing credit they possess that the total volume of credit will amount to £12,000,000,000. When they have done this, they will have attained that proportion of liabilities to reserve which they, *ex hypothesi*, think should not be exceeded. Adopting for the time being Mr. Macleod's language, we may say that the Circulating Medium, stated in pounds sterling, will then be twice as great as before, £12,200,000,000 as against £6,100,000,000, and, on Mr. Macleod's own showing, prices will be twice as high as before.

The same argument may be put in another form. Let us assume that England issues inconvertible notes to such extent that every sovereign is replaced by a paper note for one pound.

In such a case, other things being equal, prices will remain unaffected, and will be as high or as low as they were before. Commodities will not, as Lord Farrer occasionally assumes, be measured by the value of the material contained in the notes, which is the paper of which they are made, but by the value of notes *as money*, and

the value of the notes as money is determined solely by their quantity. If the Government of the day doubles the quantity of notes, it is easily seen that the value thereof, other things being equal, will fall to half what it was before, and prices will be doubled.[1] If the Government reduces the quantity prices will fall again. In other words, prices will rise and fall in accordance with the Quantity of Money. There may, of course, be slight disturbing causes which will prevent the rise or fall of prices being in exact proportion to the variations in the quantity, but the truth of the general law that, other things being equal, the scale of prices varies in accordance with the quantity of money, seems to me beyond question. If money has so little influence on prices as Lord Farrer and Mr. Macleod suppose, an enormous amount of inconvertible notes might be issued without appreciably affecting prices, but we know that this is not the case.

If credit ever displaced money altogether, there would be no Standard of Value at all, and the pound sterling would become what Lord Castlereagh supposed it to be, namely, *a sense of value*, and a sense of value that could, and would, fluctuate without limit.

[1] As a matter of fact, the issue of a great quantity of inconvertible paper would probably have a greater effect on prices, because when people had lost confidence in paper they would cease to hold it in reserve as they had held gold, and "other things" would no longer be the same.

In the present day there are several countries that have what are called Gold Exchange Standards, where the currency is composed of over-valued silver coins which are maintained at the same relative value with gold by simply adding to and diminishing the amount of silver coins in circulation as circumstances may require.

The best known of these countries is India, and nobody doubts that, if the additions to or withdrawals from the currency can be carried far enough, the same relative value between the silver coins and gold can be permanently maintained. I do not think that any stronger proof could be conceived of the essential soundness of the Quantity Theory.

The satisfaction with which Lord Farrer contemplated the almost entire disappearance of gold from the currency, as commercial aptitude increases, would not be shared by practical men. The Bankers who are in charge of the gold reserves of the world watch most carefully over the balances of their respective Banks, and take immediate steps to stop or check any drain upon them. Many good authorities hold that the English cash balances are, and have for a long time been, too low for safety, and there is no doubt that they would be increased but for the fact that their increase would be costly, and that everybody wishes to throw that cost on somebody else and prefers to run a certain amount of

risk rather than bear it himself. The statement that there is no limit to credit except demand requires no comment. It bears its refutation on the face of it.

If I sell an article and do not require the purchaser to pay for it till after the lapse of three months, I may be said to give him credit, but there is no economy of gold or money. The payment is merely postponed. If during that period of three months I buy an article of equal value from him and we set off the one transaction against the other, there is a real economy of gold. No money passes between us. Under our system of Banking transactions of buying and selling are continually being set off against each other, and a great economy of gold results. A Bank, in addition to its other functions, acts as a Clearing House for its customers. The claims of the Bank against its customers[1] and of the customers against the Bank,[2] as well as of the customers against each other[3] are all on record at the Bank, and are continually being set off against each other. But there never was, and never can be, a system of Banking which could be carried on without a basis of money somewhere.

Banking increases the efficiency of money as a medium of exchange, but even if it multiplies its efficiency ten-fold it leaves unaffected the

[1] Loans and Advances. [2] Deposits. [3] Bills of Exchange.

fact that if the quantity of money is doubled its power to effect exchanges even under the most perfect Banking system is also doubled, and the Quantity Theory is not affected.

It seems to me that the Quantity Theory of Money is unassailable so long as it is qualified by the condition that "other things are equal."

I admit that other things never are equal, and that they are so subtle in their mode of operation that hitherto it has been impossible to say beforehand what the precise effect will be on prices of an increase or decrease in the Quantity of Money or of additional or reduced demands for it. An increase in the Quantity of Money might be followed by a fall in prices: a decrease in Quantity might conceivably be accompanied by a rise in prices. Moreover, the price of every commodity is always rising or falling from causes unconnected with the Standard of Value, and it is difficult to trace the effect of the Quantity of Money on prices, unless we examine the changes in price over a long series of years.

Nevertheless, an increase or decrease in the Quantity of Money has a proportionate effect on prices, and if we cannot trace the precise effect it is simply because it has been obscured or counteracted by other causes which have had an equal, or even a greater, effect on them.

When exchange by means of a medium was

substituted for barter, the essential nature of the operation was not changed. Commodities continued to be exchanged as if under a system of barter, but such exchanges were facilitated by the adoption of a Medium of Exchange, became practicable where they had been formerly very difficult, or even impossible, and their number was increased.

When credit began to be used, and one transaction was set off against another, the process of exchange was still further facilitated, and the number of exchanges increased. At the same time a great economy of gold was effected, and, as the organisation of credit improves, the economy of gold increases.

The use of the telegraph and the quicker and cheaper modes of transport in the present day also facilitate exchanges, but on the other hand they enormously increase the number of exchanges.

Wheat can be transported quickly and cheaply from North-West Canada to England and the shipper of wheat can get the necessary credit at a moderate cost. But in former times there were no such imports into England; and wheat cannot be grown in Alberta, carried to the coast by railway or canal, and shipped to England without making some demand, more or less, on gold and the gold reserves of the Banks.

As civilisation progresses, the division of labour

increases and exchanges become more frequent. Commodities that are in everyday use are now freely exchanged between countries which formerly had no commercial intercourse or almost none.

So complicated is the commercial mechanism in the present day, and so numerous are the exchanges, that it is quite impossible to say definitely beforehand whether the yearly supply of gold will have the effect either of appreciating or depreciating the Standard of Value. What we do know is that an increase in the quantity of gold available as money exerts an influence in the direction of raising or keeping up prices, and that a diminution has the opposite effect.

It is wholly unreasonable to expect that any possible extension of credit will ever destroy this effect of the quantity of money or render the supply of gold a matter of no importance.

On the contrary, it seems to me quite certain that as civilisation progresses, and the organisation of the system of credit improves, the Quantity Theory of Money will be less and less subject to the qualifications and limitations arising from the fact that other things are not equal.

In former times, when the system of credit was less developed than at present, exchanges were comparatively infrequent. Money passed from hand to hand, often remained for a long time in the hands of one person, and not infrequently

was held up altogether, or hoarded, before it had produced any appreciable effect on prices. As a consequence, increased supplies of gold and silver when put into circulation travelled comparatively slowly from one country to another, filtered gradually through each country, and were continually being decreased by hoarding. Their effect on general prices would therefore be slow and not very great. This fact explains why the enormously increased production of gold and silver after the discovery of America affected prices so slowly.

The slowness with which the precious metals filtered through Europe at that time may with advantage be compared with what happens in the present day. Every week a fast steamer brings an average of over £600,000 in gold to London from South Africa. The amount imported is eagerly noted and recorded in the newspapers. The gold is transferred to the Bank of England: speculation is rife as to where it is to go: the great Banks and financial authorities compete for it: in a very few days it finds its way into the Banking reserves of the world: begins at once to act on credit, and through credit on prices—and not on prices in one place only, but on international prices, and on general prices in all countries served by the Banks into whose reserves the gold has gone.

As the quantity of commodities increased

and exchanges became more frequent, especially at certain centres, the use of credit grew by a natural process. It has reached its highest development in recent years, but it is not a new invention. In the least advanced countries traders keep accounts with each other and with their customers, and set off the transactions against each other, and it is this setting off of one transaction against another which constitutes the economy of gold due to the use of credit. If I sell an article to another man and draw a bill on him for the price at three months sight, and discount that bill, there is no economy of money if the man who discounts the bill pays me cash. On the contrary, there is an increase in the use of money if the drawee pays him cash at the end of three months. In that case there will have been two payments of money instead of one. But if I discount the bill at a Bank and accept payment by means of an entry of the proper amount to my credit, and if the bill is paid when it becomes due by the account of the drawee at some Bank being debited with the amount no money has passed from hand to hand, and there is a distinct economy of gold. But against the credit which the Bank gives me when it discounts the bill it must hold money somewhere and to some extent in order to preserve a proper balance between its liabilities at call and its available cash.

In his History of the Rebellion against

Charles I, Lord Clarendon expresses the surprise he felt when he found that, notwithstanding the great comparative wealth of Amsterdam in the year 1649, it was difficult to get £20,000 in coin.

"The Prince of Orange said that he believed that they who knew London so well would wonder very much that he should have been endeavouring above ten days to borrow twenty thousand pounds, and that the richest men in Amsterdam had promised to supply him with it, and that one half of it was not yet provided. . . . He could have double the sum in less time if he would receive it in paper, which was the course of that country; and when, bargains being made for one hundred thousand pounds to be paid within ten days, it was never known that twenty thousand pounds were brought together in one time, but by bills . . . and he did really believe that, though Amsterdam could pay a million within a month upon any good occasion, yet they would be troubled to bring twenty thousand pounds together into any one room."

The growth of credit coincides with the growth in the quantity of commodities and the increase in the number of exchanges; it thus operates to check or reduce an increase in the demand for gold rather than to effect a positive reduction in the previously existing demand.

The United States of America use credit very largely, but they also require a great store of money of full legal tender, and so do many other countries.

How, then, can it justly be said that the Quantity Theory of Money ceases to be applicable as credit extends? It never could be applied anywhere, or at any time, without the qualification that other things remained equal, but, as Banking progresses, the qualification will become of less, and not of greater, importance.

When the system of Banking has received its complete and ultimate development, the condition that other things must be equal will be of less importance, and the statement that the level of prices is directly proportionate to the Quantity of Money, and inversely proportional to the Volume of Trade, will be subject to less qualification than it is at the present time.[1]

[1] Though my opinions differed from those of Lord Farrer and Mr. Macleod with regard to the Relation between Money, Credit, and Prices, I had the highest respect for Lord Farrer's character and ability, and fully acknowledge the benefit I derived from the study of Mr. Macleod's contributions to Economic Theory.

My personal relations with both of them were always of the most friendly character. The fates were unkind to Mr. Macleod when the supposed necessities of the Bimetallic Controversy brought into prominence, for a time, that portion of his writings which was most open to attack.

CHAPTER VIII

ALL TRADE, THOUGH CARRIED ON THROUGH A MEDIUM OF EXCHANGE, IS, IN ESSENCE, BARTER

If a millionaire found himself alone on a desert island, and could not leave it, he would be in a very unfortunate position, even though he had all his millions with him in the form of gold. In the last resource he would, no doubt, be willing to part with half his fortune in exchange for the means of subsistence for a few days, but even at that price he could not satisfy his immediate wants. On the other hand, if he found himself in London, and still in possession of his millions, he could procure at a moderate cost every material comfort the world can produce, and it is difficult to assign any limit to the position, social and political, which he might attain by a judicious expenditure of his funds.

We see, then, that gold, as money, is of value only when we can exchange it for other things. A farmer who sells a quarter of wheat for two sovereigns finds them of no real

advantage to him until he exchanges them for something else. He can, for example, get a certain amount of food or clothing in exchange for them. In the ultimate analysis, he simply exchanges his wheat for food or clothes. When he exchanges his wheat for gold, it is customary to say he sells his wheat; and when he exchanges his gold for clothes, it is customary to say he buys his clothes. But this is only a question of language. When he sells his wheat, he really barters it for so much gold, namely, the amount of gold which is contained in two sovereigns. When he buys his clothes, he, in fact, barters the gold contained in the two sovereigns for clothes.

By combining the two transactions, we see that he has, by using gold as a medium, bartered his wheat for food or clothes. In substance, there would be nothing wrong in saying that when we either buy or sell commodities we barter commodities for gold. As a question of language, it is convenient to use the words "buy" and "sell" when one of the articles exchanged is money.

As the farmer does not, as a rule, consume the money in the sense of using it in ways which actually destroy it, but only desires it in order that he may exchange it for other commodities, it is not necessary, or even convenient, when he sells a considerable quantity of wheat, that he

should actually be paid in sovereigns. If he has confidence in the purchaser, it suits him better to take a cheque, which is simply an order on a Bank to pay so much gold. He can let the gold remain to his credit at the Bank, and when he wishes to buy anything with it he can issue another order to the Bank to pay the gold to the person from whom he has made the purchase.

The fact that the buyers and sellers do not ordinarily require the gold for consumption in a form which would use it up or destroy it, but only use it as a Medium of Exchange, renders possible and convenient the gigantic system of credit which we see in operation.

Buyers give orders on their Bank for gold; sellers accept the orders and leave the money for safe custody in the Bank. When, in their turn, they become buyers, they again issue an order for the payment of the money, and this order the second seller may use in the same way as the first did, *i.e.*, he may also leave the money in the Bank to his credit.

The Banker has the care of the money while it is in his custody, and as he knows it will not all be called for at the same time, he can use it in Banking business, which earns a profit. For example, he can make loans or advances or discount bills, or in other words create credits in favour of his customers against which more or less cash may be required. But he must always

keep a proportion of cash in his hands, or under his control, such proportion varying from time to time and from place to place, because if the depositor asks for his money, and cannot be given it, or something which he will accept in place of it, the penalty to the Banker is bankruptcy.

If the price of the quarter of wheat which has been 40 shillings, rises subsequently to 50 shillings, the farmer is pleased because he gets twenty-five per cent. more money for his wheat, but the source of his pleasure is the feeling that by getting twenty-five per cent. more money, he really gets twenty-five per cent. more of everything which he requires. If the price falls to 30 shillings, he gets twenty-five per cent. less of everything for his wheat.

Relative prices over all portions of the world that have free commercial intercourse with each other are determined by economic considerations, and express the ratios in which commodities exchange for each other, and, if different countries have the same Standard of Value, the actual money prices are so adjusted from time to time as to express the relation in which the commodities would exchange for each other under a system of barter.

The merchant looks only to the price at which he can buy and sell, and, as all trade is fundamentally barter, money prices must alter from time to time in such a manner that the

buying and selling by merchants and traders, who look only to their own profit, becomes the means by which the bartering is carried on. If the price of a commodity is higher in one country than in another, the commodity tends to flow to the country where the price is higher, for merchants are always anxious to make a profit by buying in the cheap market and selling in the dear. If the scale of prices is too high in one country as compared with another, the action of the merchants who carry on the international trade does not, in the first instance, bring about the exact equilibrium which is necessary to barter. The imports of the former country are not balanced by its exports; the exchange falls, and the fall in exchange tends to stimulate exports and check imports and thus bring about equilibrium. If the exchange falls below what is called specie point, gold is actually sent from one country to the other. If prices continue to be too high in the country which exports the gold a further balance against it will develop, and must be met by further exports of gold, and this process must go on until the withdrawal of gold from the one country and its import into the other country brings about such a lowering of prices in one country or such a raising of them in the other or has both these effects to such extent, that equilibrium is attained.

There is no other means by which the respective scales of prices in the two countries can be fixed at their proper comparative levels, and the results which are brought about, and must be brought about, by the export and import of gold illustrate the soundness of the Quantity Theory of Money.

Lord Farrer throws doubt on the theory that the adjustment of prices in different countries is effected by exports of gold. He says that when there is a balance against any particular country, the adjustment is generally effected in the present day by the transfer of credit or debt.[1]

I admit that an international balance may be, and often is, settled for the time being by one country acknowledging that it is in debt to the other, and undertaking, in one form or another, to pay interest on that debt, or by transferring a debt which is due to it by some other country.

But if the balance due by one country to another has arisen from the fact that its scale of prices was comparatively too high, such a settlement, for the time being, as I have indicated does not remove the cause. The scale of prices

[1] Mr. Harold Skimpole seems to have held the same view as to the value of credit as a means of escaping from a pecuniary difficulty.

"I thought . . . . that Mr. Richard or his beautiful cousin, or both, could sign something, or make over something, or give some sort of undertaking, or pledge, or bond."

The Bailiff, however, held a sounder opinion and insisted on cash.

remains too high and a fresh balance arises, and if paid again by debt, a further balance must accrue, and this process must continue until the scales of prices in the two countries bear such relation to one another that commodities can be exchanged for commodities as if under a system of barter. The transfer of debt from one country to another does not produce, and cannot produce, any such equilibrium. It generally aggravates the evil, for the country that exports debt in payment of a balance has in future years not merely to export commodities in exchange for the commodities which it imports, but it has to export still more commodities in payment of interest on the debts it has incurred, and until the scales of prices in the two countries are properly adjusted it cannot do so.

It will thus be seen that the same law applies to money in the international trade, if the two countries have the same standard of value, which applies to commodities. Commodities tend to flow to the country where their price is high or, in other words, their value greatest. Gold tends to flow to countries where prices are lowest, or in other words where the value of gold is highest.

Money, and the system of credit based on money, constitute the mechanism by which the exchanges of commodities are effected in modern times.

The necessary adjustments of prices can,

however, sometimes be made without the export or import of gold. The Banks watch the fluctuations of the rate of exchange and raise the rate of discount when the rate of exchange is turning against the country in which they are situated. In this way an influence is brought to bear which tends to lower prices and may restore barter-equilibrium without any export of gold. If it does not do so an export of gold becomes inevitable.

It is unnecessary to examine in greater detail the nature and operation of the forces which regulate this flow. The fact is undoubted, and that is enough for the purpose I have in view.

Money, therefore, by the natural operation of trade is distributed throughout the world in the exact proportions in which it is required in each place, and the prices of commodities stated in terms of money express the proportions in which they would exchange for each other under a system of barter.

CHAPTER IX

THE FORMATION OF WORLD PRICES

"GOLD and silver having been chosen for the general medium of commerce, they are, by the competition of commerce, distributed in such proportions amongst the different countries of the world as to accommodate themselves to the natural traffic which would take place if no such metals existed, and the trade between countries were purely a system of barter." In these words Ricardo laid down what is, perhaps, the most fruitful principle in the Science of Political Economy.

But the merchant in modern commerce never thinks of bartering commodities for commodities. When entering upon his transactions, he does not take into account the rate at which wheat will exchange for iron, or jute for copper. He looks only to prices—the price he has to pay for the article, the price he has to pay for services rendered in bringing it to the place where his purchaser takes delivery, and the price which the purchaser pays him.

It necessarily follows that all prices of articles interchanged between different countries must be in such relation to one another that trade goes on as if under a system of barter.

Consequently, the relation which the prices of articles exported from country A to country B bear to the prices of articles produced in country B and exported to country A, is determined by the necessity which exists that it shall be such as will permit of the trade being carried on as if under a system of barter.

The scale of prices of the articles of each country which enter into the international trade of the world, is determined as stated above, and the scale of prices of the articles produced in each country and not exported from it is determined by economic considerations, and must be such as to permit the internal trade of each country, as well as the international trade, being carried on as if under a system of barter.

As the relative scales of prices in different countries are determined by the international trade, it follows that the scale of prices in each country will tend to rise and fall in accordance with what Economists have called its relative advantage in international trade. The amount of money wages will depend on the scale of prices.[1]

[1] It does not follow that a country suffers an economic loss when it loses a portion of its relative advantage in the international trade, or that it makes an economic gain when its relative

If the scale of prices in any country is higher than will permit of trade being carried out as if under a system of barter the necessary adjustment must be, and will be, carried out in some way or other.

In such case, more commodities will be imported into the country where prices are too high than would exchange under a system of barter for the commodities that are exported. Consequently the exchange will fall in order to stimulate exports and reduce imports, and if a slight fluctuation has not the necessary effect the exchange falls until specie point is reached and gold is exported. The reduced quantity of gold in the one country and the increase in the other, cause a readjustment of the scale of prices in the respective countries so as to permit of trade being carried on as if under a system of barter; in other words, trade always proceeds in accordance with economic

advantage in that trade increases.

England lost a portion of her relative advantage when foreign nations were able to send her wheat in large quantities at lower prices, but, economically, she was a gainer.

A country which imposes a high protective tariff raises its general scale of prices, and may in the sense in which the phrase "relative advantage" has just been used improve its relative advantage in international trade, but, nevertheless, it suffers an economic loss. It may possibly exchange its exports on better terms than before with foreign countries, but the reduction in the total quantity of commodities so exchanged more than counterbalances the gain, and the loss to the whole community takes the form of a greater rise in prices than in wages. "Relative advantage" is not a phrase which has been happily chosen to express what is meant.

laws which are independent of the Standard of Value.

Not merely does the internal scale of prices and wages of each country depend upon, and fluctuate in accordance with, its relative advantage in the international trade, but there are in each country what the Economists call non-competing groups, which also have their special scales of prices and wages. Such groups are due to some extent to absence of perfect mobility of capital, but more largely to comparative immobility of labour, as well as to cost of transport between places at some distance from each other.

We see, therefore, that among all countries which have commercial intercourse with each other and the same Standard of Value:—

1. The conditions of the international trade determine the relative scales of prices and wages in the different countries.
2. There are non-competing groups in each country which have their own scales of prices and wages differing more or less from those prevailing in other parts of the same country.

It follows that the prices of articles produced and consumed in a country and also wages may rise or fall in that country though the prices of corresponding articles and also wages are falling or rising in another country, and similar

changes may take place in one portion of a country as compared with another, and wages may rise or fall in one trade in a country though they are falling or rising in another portion, or in another trade, of the same country. These relative changes are wholly independent of the Standard of Value and would be the same under any Standard of Value.

An illustration may perhaps make the matter clearer. If an article which is produced in one country at a cost of ten days' labour and the use of £100 of capital for one day, exchanges for an article which is produced in another country at a similar cost in capital, but at the cost of only five days' labour, the prices of the two articles will be the same, but, assuming that the remuneration for the use of capital does not differ, wages will be only half as high in the one country as in the other, and so on.

It is fortunate that the relative advantage in international trade does not usually vary rapidly and greatly, as the following illustration, which is wholly imaginary and highly artificial, will show:—

Let us suppose that there is a country which cannot export or import any commodity except wheat, which makes use of the gold standard, and does not produce any gold. It will buy its gold by exporting wheat, and if it gets 60*s.* a quarter for its wheat, the price of wheat will be

60*s*. per quarter and all articles internally produced and consumed will bear the due economic relation thereto.

Let us further suppose that the price which it gets for its exported wheat falls to 30*s*. owing to a cheapening of the cost of production of wheat by foreign nations. It will no longer be profitable to export wheat and import gold. The tendency will be exactly reversed for a time, and it will be profitable to export gold and import wheat: and this process will go on, and must go on, until the price of wheat falls to 30*s*. a quarter, and the price of everything falls in proportion from economic causes. When that stage has been reached, things will go on exactly as before, and the country will be neither worse off nor better off than it was, except in so far as there may be contracts still running, or customary prices still existing, which were originally fixed when the higher scale of prices prevailed.

In the case I have assumed, all prices and wages will have fallen fifty per cent. although there was no cheapening of production in that country, and there will have been an all round appreciation of gold of 100 per cent.; in other words, gold will buy twice as much of everything as it would have done before the change took place.

It is an interesting question whether there would or would not have appeared any

tightness in what is called the Money Market in consequence of, or in connection with, an appreciation of the Standard of Value due to the cause just stated.

The answer will depend on whether or not the economic influence tending to cause all prices to fall in harmony with the fall in the price of wheat acted more quickly than the export of gold. If prices fell rapidly there would appear the strange phenomenon of a general fall in prices coupled with a superfluity of gold in the Banks which could not be got into circulation and would necessarily be exported.

The case I have imagined is of course a purely artificial one, but it will serve to show how subtle and far reaching the operations of trade are. An increase in the purchasing powers of the Standard of Value of 100 per cent. affecting all prices and wages, and unattended by any lowering in cost of production would be an appalling calamity, whatever the cause of it might be.

It will be observed that if, simultaneously with the cheapening of the cost of production of wheat which brought its price down to 30*s.* a quarter, there had been an increase in the supply of gold which kept the money price of exported wheat at 60*s.* the country in question would have suffered neither from Appreciation nor Depreciation of

the Standard of Value, as the increased supply of gold would have just counteracted the tendency to a fall in prices.

It may here be noted that the price of an article is not affected by the degree of estimation in which it is held by people who neither purchase nor sell it.

Also that the price of an article is not affected by the degree of estimation in which it is held by people who either produce or consume it so long as the quantity produced and consumed remains the same.

In other words a change in mental attitude has no effect on the outside world unless it influences our actions in some degree.

This proposition may have the appearance of a truism but it will be found useful hereafter.

CHAPTER X

ALTERATIONS IN THE RELATIVE VALUE OF DIFFERENT MONETARY STANDARDS

ALTERATIONS in the prices of commodities and fluctuations in the rate of exchange are the means by which the monetary system of the world is regulated, so as to enable commodities to be exchanged for each other in the proportions in which they would naturally exchange under a system of barter.

It is of so much importance to have clear ideas on the subject of the causes of fluctuations in exchange and of the consequences of these fluctuations, that I consider it necessary to make some further remarks on the subject, and it will be convenient to begin with the simplest case. Let us, therefore, assume that there are two countries which exchange commodities and have no other financial relations. Let us also assume that they use separate systems of inconvertible paper and that they only interchange two commodities. The money of each country being made of paper has no value except as money, and the value of the paper money of each country depends on the

amount of commodities it will purchase in that country. It is that purchasing power, and nothing else, which gives it value.

If I live in one of these countries and hold a quantity of the money of the other, the only way in which it can be exchanged for the money of my own country is by sending it to the foreign country, purchasing something with it there, bringing the purchase to my own country and selling it for the money of that country.

To ascertain the relative value of the money of the two countries we must, therefore, ascertain the ratio of exchange of the two commodities to which we have supposed the international trade to be confined. In that way, and in no other way, can the relative value of the two monies, or rate of exchange, be determined.

If we denote the two countries by A and B and assume that at any time the two commodities exchange in the ratio of Q to q and that the prices in the respective countries are P and p, the relative value of the money of the two countries, or rate of exchange between them, will be given by the following equation in which the sign of equality denotes equality of value and not numerical equality.

$$QP = qp.$$ [1]

[1] The reader will observe that I have omitted to take into account freight, profit, insurance and so forth. I follow this course because their omission simplifies the equation and does not affect the soundness of the argument in favour of the principle which I wish

In other words the value of the monetary unit of A will be to the monetary unit of B as 1 is to $\frac{qp}{QP}$. We thus see that the value of the money of A as compared with that of B varies directly as $\frac{q}{Q}$ and as $\frac{p}{P}$.

Now $\frac{q}{Q}$ represents the ratio in which the two commodities exchange against each other, and $\frac{p}{P}$ represents the ratio of the prices of these commodities in their respective countries of origin.

It follows that the exchange will move in favour of that country:

(1) which barters its goods on more advantageous terms, because, if we assume A to be the country in favour of which the exchange moves, Q will diminish as compared with q, or

(2) of which the price (P) of the article it exports is lowered relatively to the price (p) of the commodity which it imports.

Appreciation or Depreciation of the one Standard of Value as compared with the other will depend on:

to establish. I follow the same course throughout this work in every instance where the omission of such items does not affect the general conclusion.

(1) The ratio in which they exchange commodities for commodities.

(2) The respective prices in the monies of the two countries of the commodities which they exchange.

In practice any two countries would always exchange more than two commodities. One country would export:

$$Q_1P_1 + Q_2P_2 + \dots + Q_nP_n$$

and the other would export

$$q_1p_1 + q_2p_2 + \dots + q_mp_m$$

But no matter what number of commodities are exported or imported, the imports must pay for the exports, and therefore $Q_1P_1 \dots + Q_nP_n$ must be of the same exchange value as $q_1p_1 \dots + q_mp_m$. We may represent the former series by ΣQP and the latter by Σqp.

If A owes money to B, the equation which determines the rate of exchange of the two countries will be modified, and we may write:—

ΣQP[1] $= \Sigma qp + X$

when X represents the amount of debt.

[1] It might seem at first sight that the equation $\Sigma QP = \Sigma qp + X$ gives a higher value for the monetary unit of A than the equation $\Sigma QP = \Sigma qp$, but the reader should recollect that Q and q are not of the same value in the two equations. Q is larger and q is smaller in the latter equation, and there will also have been a tendency for P to increase and p to diminish when the necessity for the payment of the debt (X) came into operation. The equation $\Sigma QP = \Sigma qp + X$ would, in practice, give a lower value for the monetary unit of A than would the equation $\Sigma QP = \Sigma qp + X$. At any rate it could never give a higher value.

In practice there would ordinarily be a number of transactions in the form of payments of interest on debt, and transfers of capital from one country to the other of which X represents the *net* result.

The equation $\Sigma QP = \Sigma qp$ may be put in the form $Q'P' = q'p'$, if Q' and q' represent the respective quantities of commodities and P' and p' represent their respective average prices, the average prices being so calculated that $Q'P' = \Sigma QP$ and $q'p' = \Sigma qp$.

From what has been said it will be obvious that when two countries have different Standards of Value, the rate of exchange is determined from time to time so that the commodities exported from each country shall be the equivalent, as if under a system of barter, of the commodities imported, if the one country is not indebted to the other or if lending and borrowing is not taking place between them; if one country is indebted to the other or if one country is lending to or borrowing from the other, the bartering of commodities must take place on such terms as to just settle the whole account for the time being between the two countries.

It will simplify the argument if we take England as one of the countries and India, while she still adhered to the silver standard, as the other. On this assumption, the rate of exchange

between England and India (if India be taken as A) will be

$$(1)\ \text{Rs. } 1 = £\frac{q'p'}{Q'P'}$$

or if X represents the payment by India for which she receives no direct commercial equivalent, we have,

$$(2)\ \text{Rs. } 1 = £\frac{q'p' + X}{Q'P'}$$

If a larger quantity of the commodities produced in India had to be given for the same quantity of English commodities Q' would increase, and the Indian exchange would fall. In other words the rupee would represent a smaller fraction of the pound sterling. A change in the opposite direction would have the contrary effect.

If the average gold price of the English commodities (p') rose, the rupee would be worth more in gold, and the Indian exchange would rise. If the average rupee price of the Indian commodities (P') increased, the Indian exchange would fall, and the rupee be of less value when measured in gold.

On the other hand, if the gold price of the English commodity fell p' would diminish and the Indian exchange would fall.

It is certain that in actual life these fluctuations would not take place one at a time or

independently. The factor $\frac{q'}{Q'}$, as well as P' and p' would always be changing, sometimes in one direction and sometimes in another, and X would also vary in amount.

In addition to the exchange of commodities for commodities which takes place between the two countries and the payment of interest on debt, and the capital transactions connected with borrowing and lending, there would in practical business be cross adjustments carried out between all the other countries with which the two had commercial and financial transactions.

The actual rate of exchange between any two countries would not, therefore, be determined simply by the equation between the transactions of these two countries with each other, but would be the net result of all the transactions which the whole of the countries had with each other. For each country the rate of exchange would be the outcome of the transactions which it had with all other countries.

The transactions affecting the rate of exchange between different countries are so numerous that it is impossible to tell beforehand what the rate of exchange between two countries that have not the same Standard of Value will be after the lapse of some time, and when a change has actually taken place it is impossible to ascertain

all the causes that have led to it, and to assign to each cause the exact influence which it has had in producing the change. All that persons who deal in exchange can do is to take as the basis of their calculations the rate of exchange that actually prevails at the time, and to allow roughly for the probable effects of such disturbing causes of importance as they can foresee. In this way they can, and do, make an approximate estimate as to the probable course of exchange in the immediate future.

Although the rate of exchange is the outcome of causes so numerous, so complicated, and so obscure that they cannot all be foreseen, nor the exact effect of each calculated, the movement of exchange in one direction or another depends simply, in the final stage, on the balance of indebtedness, and the exchange moves to that point which enables the international account to be settled. If a country owes more than it has to receive, this state of things is reflected in the respective amounts of bills which each country draws on the other. The exchange either rises or falls, or rather it rises for one country and falls for the other, and the rise and fall so affect the international trade as to bring about equilibrium by stimulating the exports and reducing the imports of the debtor country and having the opposite effect on the trade of the creditor country. The rise and fall of exchange is merely

another instance of the working of the monetary system in such way as to ensure that commodities shall be exchanged against each other in accordance with economic laws as if under a system of barter.

In the case of such a country as India, which did not produce silver, she had to import all the metal required for her currency so long as she maintained the silver standard, and while the Mints were open to the unlimited coinage of silver she had to take all silver that was offered and the amount of silver offered was the amount that could not be more profitably disposed of in other ways. Looked at as an article of import, silver simply took the same place in the international trade as any other article of import, and, value for value, had the same effect on the international equation. If the quantity of silver imported was sufficient when coined into money to raise Indian prices, such change, other things being equal, would cause the Indian exchange to fall to a proportionate extent.

We are now in a position to consider what the effect of an excessive production of silver would be on the exchange between India and England, which may be taken approximately as the exchange between the gold standard and silver standard countries.

Assuming that the exchange had been fairly steady for some time, which implies comparative

steadiness in the gold price of silver, it is obvious that a material increase in the production of silver would lead to an increased export of that metal to countries using the silver standard, and that this would only lead to a fall in exchange if, and so far as, the increased import of silver into India altered the balance of indebtedness between India and England. In other words the gold price of silver could not fall unless the exchange fell also, and a fall in exchange could not be produced by an increased production of silver unless the excess silver was actually exported to the silver standard countries.

If the additional imports of silver caused Indian silver prices to rise, P' would increase and the equation

$$\text{Rs. } 1 = £\frac{q'p'}{Q'P'}$$

would give a smaller value, or, in other words, the secondary effect of the increased production of silver would be to cause a further fall in exchange and in the gold value of silver.

From the equation

$$\text{Rs. } 1 = £\frac{q'p'}{Q'P'}$$

we see that if there is a fall in gold prices (represented by p') while everything else remains the same there must be a fall in the Indian exchange,

and, as a consequence, a fall in the gold price of silver.

It will be instructive to examine the *modus operandi* by which a fall in gold prices produces a fall in the gold price of silver.

The men who trade between the gold and silver standard countries look to the prices, in gold and silver respectively, at which they can buy and sell, and also take into account the rate of exchange, and from these and certain other elements which I need not specify, they form their conclusions as to the operations which it will be profitable for them to carry out. In the case of exchange the tendency is to assume that it will not vary materially from what it has been. On this assumption if the gold price of a commodity which is usually exported to a silver standard country falls there is an additional profit to be made by exporting that commodity and it will be exported in larger quantities. If the gold prices of all such commodities fall the tendency will be to export them all in larger quantities. The final result will be that the balance of indebtedness will turn against the silver standard country, its exchange will fall, and with the exchange the gold price of silver must fall.

The same result as regards the balance of indebtedness and the price of silver will be produced if the silver prices of articles exported

from silver standard countries rise while the gold prices of articles imported into them remain the same, other things being always assumed to be equal. In such case the exports would fall off and the balance of indebtedness would consequently turn against the silver-using country.

What I have just explained is only one instance of the general law that, whatever the primary cause of an alteration in the relative value of two separate Standards of Value may be, the immediate and proximate cause is always a change in the balance of indebtedness between the countries which make use of those Standards of Value.[1]

The fluctuations of exchange between two countries that have the same standard are due to precisely the same causes but, in such cases, the fluctuations cannot be carried beyond what is called specie point. When that point is reached, the account will be settled by the export of money from the debtor to the creditor country. The account may be settled for the time being by a transfer of debt, but that is not a final settlement, and if the scale of prices remains too high in the debtor country to permit of the balance of indebtedness being settled by the

[1] The reader should bear in mind that I am not dealing with those temporary fluctuations in exchange which are due to apprehensions and hopes affecting the minds of persons interested in the rate of exchange and which are always corrected after a time by the economic facts of the situation.

export of commodities, or of something other than mere promises to pay, there must, sooner or later, be an export of the metal of the Standard from one country to the other. It is this transfer of gold from the one country to the other which brings about that comparative level of prices in the two countries which ensures that trade shall be carried on between them as if under a system of barter, and I know of no other way in which the necessary adjustment of prices can in the last resort be brought about.

CHAPTER XI

APPRECIATION OF THE STANDARD OF VALUE

THE phrases "Appreciation of the Standard of Value" and "Depreciation of the Standard of Value" have an awe-inspiring effect on the minds of many persons. "Depreciation of the Standard of Value" is associated in their thoughts with the evils which follow the over-issue of inconvertible paper money, and "Appreciation" is taken to mean a universal fall in prices and wages, unconnected with any economic change or increase in the Volume of Trade, which paralyses industry and adds indefinitely to the burden of all money payments fixed either by contract or custom. To such an extent does this feeling prevail that it seems desirable to avoid as far as possible the use of the terms "Appreciation" or "Depreciation" of the "Standard of Value" and to use instead the phrases "Increase" or "Decrease" of the "Purchasing Power of Money."

If this view were accepted it would be convenient if the use of the terms "Appreciation" or "Depreciation" of the "Standard of Value"

were confined to cases where the relative values of two or more Standards of Value were being dealt with.

The prices of all ordinary commodities are always either rising or falling, and when a rise takes place in the price of any article the metal which constitutes the Standard of Value is depreciated, or lowered in value, as regards that article; when a fall takes place it is appreciated, and there is no method of integration known to me by which all these changes can be summed up with complete accuracy, a precise value being attached to each of them, and an opinion which is mathematically correct given on the question of the fact, and extent, of general, or absolute, Increase or Decrease of the Purchasing Power of Money.[1]

If we could produce in any country an absolutely stationary condition for a number of years—the population remaining the same, the same articles being produced in the same quantities and with the same facilities, and so on —relative prices and wages would remain the same, and if all money prices and wages rose (which, *ex hypothesi*, would take place to the

[1] The question of the best means of determining changes in the Purchasing Power of Money has been carefully investigated of late years, and with some success, but the difficulties in the way of devising a perfect measure of Appreciation or Depreciation appear to be insuperable, and we must be content with results which are only approximate.

same extent) we could safely say that there was Depreciation of the Standard of Value, while if they all fell there would be Appreciation.

No such state of things has ever existed or is at all likely to exist in the future. If we go back to the Middle Ages, however, and examine the course of prices from that time to the present day, we can have no doubt that the tendency has been towards Depreciation.

The fact that we can form a general idea as to whether there has been Appreciation or Depreciation of the Standard of Value if we consider very long periods of time, is not of much practical value. Slow Appreciation, or slow Depreciation, is not nearly so injurious as sudden changes, and whatever Standard of Value we adopt, and whatever definition of Appreciation or Depreciation we may lay down, the Standard of Value will always be increasing or decreasing, more or less in Purchasing Power. The Standard of Value which is fixed and invariable, like the yard measure, does not exist and cannot exist.

Some Economists, whose opinions command and deserve respect, have held that a liberal supply of the standard metal every year from the mines adds to the world's prosperity, and, within limits, their opinion appears to be sound. Such a supply, by maintaining the price of

commodities, or by preventing a fall, tends to reduce, and at any rate does not tend to increase, the burdens which the past has placed on the shoulders of the workers of to-day.

If the price of an article falls owing to reduced cost of production, that reduction of cost does not generally take place in equal degree for all producers of that article. The price of wheat fell in England, not because the English farmer could produce it more cheaply, but because it could be produced more cheaply in other countries and carried more cheaply to our shores. It is an appreciable gain, even when prices are falling owing to cheaper cost of production, if some portion of the burden can be lifted from the shoulders of those who produce the same articles, but cannot produce them more cheaply than before. There is little objection to an increase in money which tends to keep the prices of commodities nearer to the old level when they are falling, even though the fall be due to cheaper production. On the contrary, it is a distinct gain that this should be the case if it comes by a natural process. An era of falling prices is unfavourable to production, as it is attended with loss of profit, and therefore tends to check enterprise.

The argument, however, requires to be carefully guarded, as there is a tendency in many minds to favour an arbitrary and artificial

inflation of the currency under the mistaken impression that they thereby increase wealth.

We usually treat our own Standard of Value as if it was of fixed and invariable value, and when we earn more sovereigns per year, we are under the impression that we have been doing well, and are possessed of a greater command over the good things of the world, though that is not the case if all prices have risen in proportion. There may also be a rise in the prices of those commodities which a country produces for export, and a corresponding rise in wages, which indicates an increase of prosperity due to economic causes and is in no way connected with an increase in the world's supply of gold, and men often ascribe prosperity of this nature to the mere fact of the rise in prices and wages and overlook the more important consideration of the cause which has produced the rise. They are, therefore, liable to fall into the error of thinking that a rise in prices and wages produced by an inflation of the currency would carry with it the same degree of increase in real prosperity.

A reduction of cost of production is a good thing, and such a supply of money as prevents a great fall in prices is also a good thing, and we have, therefore, a double gain when both results are attained at the same time.

A shrinking in values, measured in money, is a serious evil in so far as it is caused by reduction,

or relative reduction, of the Quantity of Money, and a rise in prices due simply to an increase in money is, in itself, an evil, though it may sometimes be attended with certain advantages; of the two changes, the former appears to be the more injurious.

Transactions in trade and commerce which occupy a limited space of time are not very seriously affected in either case, and serious mischief is confined to contracts in terms of money which extend over a lengthened period, and to payments fixed by custom. If the Appreciation or Depreciation extends over a lengthened period, contracts run off by degrees after more or less disturbance. The new contracts are based on the new conditions, and even payments fixed by custom are modified in time though the change is slow; in this way the world gradually accommodates itself to the inevitable.

Nevertheless, a shrinking in money values which led to a reduction in money wages would be a very serious evil in the present day, even though it took place slowly and was spread over a considerable period, and serious disturbance might be caused either by a great and sudden reduction or a great and sudden increase in the supply of the standard metal. The disturbance would be in direct proportion to the magnitude of the change in the Quantity of Money. A doubling of the Quantity of Money would, other

things being equal, double money values; a halving of it would reduce prices by one half. Exactly similar changes might be produced by important countries altering their Standard of Value and thereby increasing or reducing the demand for a metal used as the Standard of Value.

If Appreciation within a short period were very serious, long term contracts would simply be repudiated, and, after a period of disturbance and suffering, a new equilibrium would probably be established.

Solon, as part of his *Seisactheia*, or shaking off of burdens, reduced all debts by debasing the Athenian Standard of Value to the extent of 27 per cent. We do not know whether the reduction was rendered expedient in any degree by Appreciation of the Standard of Value but we have seen a reduction of rents in our own time by operation of law owing to the fall in the prices of agricultural produce, mainly caused by cheaper production in foreign countries, but aggravated by special and unusual demands for gold which were of sufficient magnitude to produce an appreciable effect on the Purchasing Power of the Standard of Value.

As I have already said, there is no means by which the change in the general Purchasing Power of the Standard of Value can be determined with precision.

The price of every commodity varies from place to place, from day to day, and even from hour to hour. Commodities are not always of the same quality; new ones are constantly coming on the market—others are reduced in quantity and importance. What relative value is to be attached to changes in the wages of labour and in the prices paid for services of all kinds as compared with each other and as compared with changes in the prices of commodities? How can precise values be attached to a fall in the price of wheat and a rise in the price of old silver or of pictures by the Old Masters so as to enable us to include them in the same formula with a practically infinite number of other changes which it is equally impossible to reduce to figures? The most we can do is to observe and record the chief facts that are available, and to draw such general conclusions as they may appear to justify.

What I have said in Chapter IX on the formation of World Prices throws some light on the nature of this problem.

We should consider in the first place the changes in the prices of the chief articles which enter into the international trade of the world. We should also consider such changes in the prices and quantities of these articles as may give an indication of the changes in relative advantage in international trade of the different countries.

We should further consider the changes of prices in each country of the articles which it produces but does not export. We should adopt the same course as regards wages in each country.

It would also be desirable to make a similar examination as regards wages and prices in all non-competing groups.

When you had carried out these investigations, stated the results arrived at in each case, and considered the general direction in which they appeared to point, you could form a fair opinion as to the increase or decrease in the Purchasing Power of the Standard of Value.

Some persons propose to confine the use of the phrase "Appreciation" or "Depreciation of Gold" to cases where the "Appreciation" or "Depreciation" is due to causes primarily affecting gold. The distinction appears reasonable at first sight, but rests on no sound basis and leads to hopeless confusion.

It is impossible to measure exactly the change in the Purchasing Power of Gold, and if you made an estimate of the change which was approximately correct, it would still be impossible to say how much of the change was due to causes primarily affecting gold and how much was due to causes primarily affecting commodities.

An increase in the Volume of Trade, will, other things being equal, cause an Appreciation

of the Standard of Value which is just as injurious as an Appreciation due to a diminution in the Quantity of Money, and an increase in the Volume of Trade cannot be said to be a cause primarily affecting gold.

Much time and labour have been expended in recent years by Economists in devising a standard by which to measure fluctuations in the Purchasing Power of Money, and their efforts have not been wholly without success. But for practical purposes there is no better standard than the average[1] of the prices of the more important articles of human consumption and especially of those which enter largely into the international trade of the world, some allowance being made for the relative importance of the different articles the prices of which are being dealt with.

Such a standard must not, however, be taken to be final and conclusive on all points. It is the best indication of the direction in which the purchasing power of gold is moving, but it requires to be supplemented by enquiries in other directions, as it is quite possible that the general purchasing power of money may be increasing in one country while it is falling in another, and it is highly improbable that the increase or decrease will be found to be exactly the same in

[1] Averages of prices prepared for this purpose are known as Index Numbers.

amount in all countries during the same period of time.[1]

The attempt to confine the use of the phrase "Appreciation of Gold" to cases where the appreciation is due to causes primarily affecting gold appears to me to have had its origin in the following consideration. On the ordinary man, the words "Appreciation of Gold" have a terrifying effect. He looks upon "Appreciation of Gold" as something quite different from an "Increase in the Purchasing Power of Gold" and has an unreasoning fear of it.

It was quite easy in the Bimetallic Controversy to prove that there had been an increase in the "Purchasing Power of Gold," and if this had been admitted to be the same as "Appreciation of Gold" it would have had a powerful effect on the public mind.

To obviate this result, some Monometallists, in good faith no doubt, urged that "Appreciation of Gold" meant something quite different from a fall in prices, and tried to limit the use of the phrase to cases where the fall in prices could be said to be due to causes primarily affecting the Standard of Value, but by attempting to draw this distinction they only produced confusion.

[1] The prices of the chief articles of the international trade are especially liable to be disturbed by great wars when sea-transport is interfered with. Under such conditions the average price of such articles becomes less trustworthy as a standard of increase or decrease in general purchasing power.

Of course, if it be decided that "Appreciation of Gold" means simply an increase in the general "Purchasing Power of Gold" and if it be proved that there has been "Appreciation of Gold" in this sense, the phrase ought not to be afterwards used in the sense which causes such terror to many minds; namely, as that of a fall in prices entirely unconnected with an increase in the Volume of Trade or other economic cause.

CHAPTER XII

THE ROYAL COMMISSION ON GOLD AND SILVER

WE have seen that the Royal Commission on the Depression of Trade put forward the "Appreciation of Gold" as one of the leading causes of that Depression, and recommended that this portion of the question should be separately investigated.

As a result of that recommendation, a Royal Commission, known as the Gold and Silver Commission, was appointed in September, 1886, "to inquire into the recent changes in the relative values of the precious metals, shown by the decrease in the gold price of silver."

The more important matters referred to the Commission were the following:—

(1) To determine whether the change in the relative value of gold and silver was due to appreciation of gold or depreciation of silver, (2) To examine the effects of the change on the interests of the United Kingdom and of India respectively, (3) To consider the question whether the evils arising from the change could be re-

medied without injustice, and without causing other evils of equal magnitude, and (4) To state the remedies to be applied, if any remedial measures were considered possible and expedient.

The instructions were evidently framed with care, and may seem sufficiently precise, but, speaking in the light of after events, there were serious initial difficulties likely to arise.

I have pointed out in Chapter XI the difficulties that are encountered when an attempt is made to define "Appreciation" or "Depreciation" of a metal used as the Standard of Value, and the impossibility of fixing on any test by which such Appreciation or Depreciation can be accurately measured.

Although every metallic Standard of Value will in practice be found to be either appreciating or depreciating, whatever test may be applied, an invidious meaning is attached to the words "Appreciation" or "Depreciation" in this connection, and persons who were convinced that the single gold standard was the best would be unwilling to admit the fact of Appreciation on account of the discredit connected with the term in the popular mind. They would be drawn by a bias, of which they were doubtless not conscious, to deny or explain away the facts which might be held to prove Appreciation, and to question and impugn the principles laid down by Economists when these principles appeared to

lead to a conclusion which they could not accept. The terms "Appreciation" and "Depreciation" had not been defined, nor the test explained by which the question of "Appreciation" or "Depreciation" was to be decided, and on these points there were certain to be fundamental differences of opinions.

The Majority of the members of the Commission held that "Appreciation of Gold" meant simply a fall in prices due to causes affecting Gold, and did not include a fall in prices due to causes affecting Commodities such as an increase in the Quantity of Commodities or Volume of Trade.

I sympathise to some extent with this view, for it would obviously be unfair that Appreciation of Gold should be proved in the sense of an Increase in the Purchasing Power of Gold, and that the fact of Appreciation should subsequently be used in an argument addressed to the general public in the sense in which the public generally use the term, namely, as denoting a malignant and subtle disease affecting the Standard of Value which must be got rid of at any cost. But the limitation of the meaning of the phrase in the manner above suggested produced hopeless confusion.

The Members of the Commission were unanimous in holding that the immediate cause of the fluctuation in the relative value of gold

and silver and of the fall in the gold value of silver was the abandonment of the system of Bimetallism.

A Minority of the Members of the Commission (five out of twelve) held that the changes in the relative value of the precious metals had caused great difficulties to the Government of India, had hampered trade between countries using gold and silver as Standards of Value respectively, and had been attended by an injurious fall in prices in the United Kingdom and other gold-standard countries. They foresaw serious risks in the future if the single gold standard was adhered to, and they recommended a return to the joint use of both silver and gold, the change to be made by means of a general International Agreement.

The Majority (seven members out of twelve) held that the phrase "Appreciation of Gold" could only be used in the case of an "Increase in the Purchasing Power of Gold" due to causes primarily affecting gold. They said:—

"There can be no question that the gold price of many, and probably most, commodities has fallen during the last fifteen years. In relation to these commodities it may, no doubt, be said that gold has appreciated. That is another mode of expressing the fact that their price is lower. It may, however, also without inaccuracy, be said that in relation to gold these commodities have

depreciated. Which is the more accurate expression in any case will depend on whether the altered relation of the commodity to gold has arisen from some change which has affected gold, such as a diminished supply, or some increase of demand owing to its use for purposes for which it was not formerly employed, or whether this alteration is connected with a change affecting the commodity, such as increased supply or diminished demand. It may, however, have arisen partly from one and partly from the other, so that the true explanation of the fall in prices may be that there has been both appreciation of gold and depreciation of commodities. It is only in so far as the fall in prices is due to circumstances affecting the Standard of Value that it comes within the scope of our enquiry. A fall in the price of commodities which results from an increase in their supply or a diminution in the cost of their production or transit does not appear to us to be of itself an evil, and if it were so it is one foreign to the subject which is referred to us for consideration and report."

To the reader who has studied what I have said in Chapters V and VI of the present work it will be obvious that the above passage indicates a misconception of the mode of working of a Standard of Value. A reduction in cost of production, unaccompanied by an increase in quantity, has no tendency to reduce the general

level of prices, and an increase in the quantity of commodities may produce as injurious a fall in prices, under certain conditions, as a proportionate decrease in the quantity of money. If the phrase "Appreciation" or "Depreciation" of gold were to be limited to cases where the fall or rise in prices was due to causes affecting gold, the same meaning must be given to "Appreciation" and "Depreciation" when we come to deal with silver. It would therefore follow that the divergence in the relative value of gold and silver must be due either to causes affecting silver or to causes affecting gold, or to both these classes of causes, and *could not have been due to causes affecting commodities*, though I have shown beyond all question that changes in the relative value of metals used separately as Standards of Value can be, and frequently are, produced by causes affecting commodities.

However erroneous the views of the Majority may have been as to the causes of Appreciation of Gold, they did, however, call attention in the passage I have quoted to a very important matter. During the period with which the Commission dealt there had been a great fall in the real cost of transport, and a great reduction in the real cost of production of many commodities, and the effect of these changes had been wide-spread, as well as beneficial from an economic point of view.

It was proved before the Commission that there

had been a general fall in the gold prices of commodities, but it was not proved that there had been any fall in the average level of money wages measured in gold, though it was obvious that many industries in the United Kingdom had been seriously affected by changes in economic conditions, and that the persons employed in them had suffered from unemployment and loss of wages. It was equally evident that the position of the wage-earning classes had, on the whole and in the long run, been improved. Their money wages were as high as before, and the prices of many commodities which they consumed had fallen.

The Majority summarised their conclusions in the following terms:—

"We think that the fall in the price of commodities may be, in part, due to an appreciation of gold, but to what extent that has affected prices we think it impossible to determine with any approach to accuracy.

"We think, too, that the fall in the gold price of silver has had a tendency operating in the same direction upon prices, but whether this has been effective to any, and if so to what, extent we think equally incapable of determination.

"We believe the fall to be mainly due, at all events, to circumstances independent of changes in the production of, and demand for, the precious metals, or the altered relation of silver to gold.

"As regards the fall in the gold price of silver, we think that although it may be due in part to the appreciation of gold, it is mainly due to the depreciation of silver."

On the question of remedies, the Majority thought that any Bimetallic arrangement should be on the basis of a ratio approximating to the actual market ratio of the two metals, and they were unable to recommend that England should consent to change her Standard of Value in order to secure an International Agreement for the re-establishment of Bimetallism.

They favoured the creation of a more extended demand for silver, and recommended the removal of the duty on silver plate and the issue of small notes based on silver, while they suggested negotiations with other nations which might lead to a more extended use of silver, and recommended that the Government of India should be allowed to deal with the problem as it thought best.

The fact that, although prices of commodities had fallen, average money wages had not fallen was fatal to any attempt being made to return to Bimetallism. England would not change her Standard of Value unless under the pressure of necessity, and without England other nations would not undertake the task. So long as money wages did not fall the plea of imperious necessity for a change could not be sustained,

and all proposals to produce fixity of relative value between the two metals by a more extended, but limited, use of silver were based on a misconception of the real facts, and any attempt to carry them out in practice could only result in failure.

Silver and gold had diverged so widely in relative value that the question of the future ratio to be maintained between them was also one of great difficulty, and though the Bimetallic Controversy dragged on for a number of years and did not actually die until the Government of India, which had previously closed its Mints to the unlimited coinage of silver, rejected the French and American proposals in 1897, there was little vitality in it after it had been shown that notwithstanding the increase in the Purchasing Power of Gold, whether called Appreciation of Gold or not, wages had not fallen, and that from an economic point of view the general prosperity of the world had increased. The probability, or even the certainty, that under a Bimetallic system a somewhat greater degree of prosperity would have been attained, and would not have been accompanied by such depression of trade as was experienced for a number of years, counted for little in the balance when weighed against the objections, real and imaginary, to making any change in the Standard of Value of the United Kingdom.

Many of the arguments by which the Majority of the Commissioners supported the conclusions at which they arrived appear to me unsound, but it could not have been expected that in face of the view which they took of the facts, and under the conditions of doubt and uncertainty in which they admittedly found themselves,[1] they should have recommended the abandonment of the single gold standard by England.

I shall in the next chapter give what appears to me to be the real explanation of the phenomena with which the Commission had to deal.

[1] In his "Studies in Currency" Lord Farrer mentions that as he was leaving the last meeting of the Committee on Indian Currency (1893) Lord Herschell, who was Chairman, said to him :—

"Well, at any rate, our work has had one effect; it has made all of us more modest than when we began."

CHAPTER XIII

THE CAUSE OF THE DIVERGENCE IN THE RELATIVE VALUE OF GOLD AND SILVER BETWEEN 1873 AND 1886

I HAVE no hesitation in laying it down as a general proposition, and subject to qualifications of minor importance, that the fall in the exchange between gold-standard and silver-standard countries, and the fall in the gold price of silver, were both due in the first instance to the fall in the gold prices of the commodities produced in the gold-standard countries and exported from them to the silver-standard countries.

In subsequent years the progressive increase in the production of silver, and the reduced demand for it, tended to lower the purchasing power of that metal.

The fall in the exchange and the fall in the price of silver necessarily occurred simultaneously and *pari passu*, but I affirm that the fall in exchange was the cause of the fall in the gold price of silver, that silver could not fall in gold price unless the exchange fell, and that the exchange could not fall until the balance of in-

debtedness turned against the silver-standard countries.

Let us take from Chapter X the equation which gives the rate of exchange between India and England :

$$\text{R. } 1 = £\frac{q'}{Q'}\frac{p'}{P'}$$

In this equation p' will represent the average price level, or Index Number of the gold prices of articles exported to India from gold-standard countries, while P' will represent the average price level in rupees of articles exported from India.

While the Indian Mints remained open, the rupee represented, simply, so much silver, and we may substitute in the equation one ounce of silver for Rs. 1, if at the same time the price (P') of articles produced in India is stated in ounces of silver.

If this is done the equation takes the form :—

$$1 \text{ oz. of silver } = £\frac{q'}{Q'}\frac{p'}{P'}$$

and may be taken to represent the general equation for all countries using the silver standard.

If we now assume that everything remains unchanged except the gold prices of commodities exported to silver-using countries, we have :—

$$1 \text{ oz. of silver} = A.p'$$

when A is a constant.

On the assumption we have made that everything remained unchanged except the gold prices of commodities, the price of silver should be found to fluctuate in exact proportion to the fluctuation of p'. I have no means of calculating the exact value of p', but we may take the Index Numbers calculated by Mr. Sauerbeck as the best approximation we can get, and comparing the fluctuations in his Index Numbers with the fluctuations in the market price of silver, we get the following results:—

Year.	Calculated price of silver (fluctuations being taken to be the same as those of Mr. Sauerbeck's Index Nos.)	Market price of silver.
1873	100·0	100·0
1874	91·9	98·4
1875	86·5	96·0
1876	85·6	89·0
1877	84·6	92·5
1878	78·4	88·7
1879	74·8	86·5
1880	79·3	88·2
1881	76·6	87·2
1882	75·7	87·1
1883	73·9	85·3
1884	68·5	85·4
1885	64·9	82·0
1886	62·2	76·5
1887	61·3	75·2

The important matter to which I wish to call attention in connection with these figures is that on the assumptions that (1) there was no cause affecting the price of silver except the fall in the gold price of commodities exported to silver-standard countries, and that (2) Mr. Sauerbeck's Index Numbers fairly represent the average gold

price of these commodities, it follows that the fall in the gold price of commodities was more than sufficient to cause the total fall in the gold price of silver.

It is generally admitted that during the period under review P'—the average level of silver prices of commodities exported from India—did not rise, but to make assurance doubly sure, I have calculated from figures published in 1910 by the Indian Commercial Intelligence Department a set of Index Numbers for twenty-two of the chief articles of export from India, with the following result:—

Year.	Index No. (to Rupee prices.)	Year.	Index No. (to Rupee prices.)
1873	100	1881	101
1874	108	1882	95
1875	96	1883	93
1876	89	1884	99
1877	100	1885	90
1878	99	1886	90
1879	100	1887	90
1880	108		

As the silver prices of articles of export from India did not rise during the period in question it could not have been any change in P' that caused the Indian exchange to fall. The only change that took place in P' was a fall, and the fall acted in the direction of causing the exchange to rise.

It is of course impossible to calculate the change in $\frac{q'}{Q'}$ but we can get approximate figures.

Commodities are exchanged against each other in the inverse ratio of their prices, and if the rupee prices of the articles of import into India fell more than the rupee prices of the articles of export, it would follow that India was exchanging her products on more advantageous terms than before with gold-standard countries, and $\frac{q'}{Q'}$ would have increased.

Investigations which I made in 1886 showed this to be the case, and I have recently taken from the figures published by the Indian Commercial Intelligence Department a series of Index Numbers for thirteen of the chief articles of import, with the following result:—

Year.	Index No. to Rupee prices in Calcutta and Bombay of 22 of the principal articles of export.	Index No. to Rupee prices in Calcutta and Bombay of 13 of the principal articles of import into India.
1873	100	100
1874	108	99
1875	96	90
1876	89	91
1877	100	88
1878	99	84
1879	100	83
1880	108	88
1881	101	86
1882	95	85
1883	93	79
1884	99	78
1885	90	75
1886	90	80
1887	90	83

Comparing the two series of Index Numbers, it will be seen that between 1873 and 1887 the

rupee prices of the articles of import fell more than the rupee prices of the articles of export, or in other words, $\frac{q'}{Q'}$ increased rather than diminished.

Let us now consider the full equation for the Indian exchange:

$$\text{Rs. } 1 = £\ \frac{q'}{Q'}\frac{p'}{P'} + \frac{X}{Q'\,P'}.$$

We have found that between 1873 and 1887 the element $\frac{q'}{Q'}$ increased, that P' diminished, and that p' fell largely and more than enough to account for the whole fall in the gold value of the rupee.

The effect of adding the element X to the original equation, assuming that X increased between 1873 and 1886, would have been to cause $\frac{q'}{Q'}$[1] to diminish and P' to increase, and as these quantities actually moved in the opposite directions, the payments by India (X) in return for which she did not receive a direct commercial equivalent, could not have been the cause of the fall in the Indian exchange.

We cannot, of course, expect the fall in the price of silver to be in exact accordance with the yearly fluctuations in the Index Nos. as given

[1] The diminution in $\frac{q'}{Q'}$ would be due to the fact that a country which has to make an additional payment to a foreign country exchanges its products on less advantageous terms than before, or, in other words, Q' would increase relatively to q'.

at p. 132, and, as we know, the movements in the series of Index Nos. prepared by various authorities do not exactly coincide. But the general movement is the same in every set of Index Nos. that I have seen. There is a fall from 1873 to 1879. After 1879 there is some recovery, which is followed by a further fall. The gold price of silver followed a similar course—a fall from 1873 to 1879, some recovery after 1879 and then a further fall. The coincidence is remarkable even though we admit the imperfect nature of the data we have had to employ, and that our figures, imperfect as they are, take no notice of some elements affecting the problem.

Summing up the whole case, we see:

(1) That the fall in gold price of articles exported to the silver using countries was more than sufficient to cause the whole fall in the gold price of silver, if everything else remained the same.

(2) That, according to the best calculation we can make, but which cannot be more than approximately correct, the other elements affecting the exchange $\left(\frac{q'}{Q'} \text{ and } P'\right)$ moved in such manner as to tend to raise the exchange.

(3) That it cannot have been the increased drawings (X) of the Secretary of State

for India that caused the Indian exchange to fall, because if that had been the case $\frac{q'}{Q'}$ would have decreased, and all the evidence that is forthcoming tends to show that $\frac{q'}{Q'}$ increased.

The question with which I have been dealing may be illustrated in another way. Let us suppose that England imports nothing from India but jute, and pays for it by exporting either copper or silver.

If the gold price of copper is £100 per ton, and the silver price of Indian jute is Rs. 1000 for twenty tons, and if one ton of copper exchanges for twenty tons of jute, England can obtain twenty tons of jute at a cost of £100 by exporting a ton of copper.

But she could also obtain twenty tons of jute by exporting enough silver to coin into one thousand rupees. It would in such case be a matter of indifference whether England exported copper or silver to India in exchange for jute, and Rs. 1000 would be worth £100, or the rupee would be worth two shillings. If, from any cause, the price of copper fell to £50 per ton, and a ton of copper continued to exchange in India for twenty tons of jute, England by sending copper to India could obtain twenty tons of jute for £50 instead of for £100 as formerly—and

the price of jute would fall in England by 50 per cent., that is, twenty tons of jute would now sell for £50 instead of for £100.

But the change in the price of copper would also affect the price of silver. In the first instance a quantity of silver sufficient to coin into one thousand rupees produced a quantity of jute which sold for £100, and the value of that quantity of silver would, therefore, be £100. In the latter case, although the silver purchased as much jute as before, the same quantity of jute sold for only £50, and the gold price of silver would be only half what it used to be.

If the fall in the gold price of copper was due solely to reduced cost of production it is improbable that one ton of copper would continue to exchange for twenty tons of jute. In such case more copper would be put on the market and it would be exchanged for jute on less favourable terms. If, under the new conditions, so much as two tons of copper had to be given for twenty tons of jute, the twenty tons of jute must continue to sell for £100 in England and, as silver would purchase as much jute as before, the gold price of silver would not fall. If $1\frac{1}{2}$ tons of copper had to be given for twenty tons of jute when the price of copper fell to £50 per ton, enough silver to make 1000 rupees would only be worth £75, that is silver would have fallen 25 per cent. in gold price.

It will, of course, be obvious that the calculations I have made give results which cannot be more than approximately correct, but the main conclusion—that the fall in the gold price of silver was due to the fall in the gold price of commodities produced in the gold standard countries and exported to the silver standard countries—seems to me to be beyond question.

It does not follow that the fall in the gold price of commodities exported to India and other silver standard countries was not due in some instances and to a greater or less extent to cheaper cost of production. For my part I believe that cheaper cost of production and lower cost of transit accounted for, at any rate, some portion of the fall in the gold prices of certain articles of export.

It happened at the time when silver began to fall in value relatively to gold that there was some increase in the production of silver and some reduction in the potential demand for it, but that this was not the chief cause in the fall in the gold price of silver is shown by the fact that there was no excessive or unusual export of silver to countries where silver was the Standard of Value. If there had been any considerable surplus of silver on the market it must have gone there, and as it did not go it is clear that it did not exist.

The following figures give, approximately, the yearly production of silver:—

	Oz.		Oz.
1869	43,000,000	1882	86,000,000
1870	43,000,000	1883	89,000,000
1871	63,000,000	1884	82,000,000
1872	63,000,000	1885	92,000,000
1873	63,000,000	1886	93,000,000
1874	55,000,000	1887	96,000,000
1875	62,000,000	1888	108,000,000
1876	68,000,000	1889	120,000,000
1877	63,000,000	1890	137,000,000
1878	73,000,000	1891	153,000,000
1879	74,000,000	1892	165,000,000
1880	74,000,000	1893	165,000,000
1881	79,000,000		

CHAPTER XIV

THE CAUSES OF THE FALL IN GOLD PRICES AFTER 1873

It is admitted that after 1873 there was a great reduction in the cost of production of many commodities, and also a great reduction in the cost of transport, but it cannot be too strongly repeated that these causes would of themselves have absolutely no effect on the general level of prices.

It is possible by examining the conditions affecting each commodity to decide whether there existed causes tending to cause a rise or fall in price, but even if you take into consideration the case of every commodity, you deal only with the causes which produce changes in relative prices, and you find no *data* which are of the slightest value in determining the absolute or general level of prices. By examining the conditions affecting wheat and copper you may find causes which appear to explain why wheat has fallen from sixty shillings a quarter to thirty shillings a quarter and copper risen from £50

a ton to £100 a ton, but your investigation throws no light on the causes which led to wheat being sixty shillings a quarter and copper £50 a ton in the first instance instead of one hundred and twenty shillings and £100 respectively, or why the new ratio of exchange between wheat and copper should have been represented by thirty shillings and £100 instead of twenty-four shillings and £80.

There was also in the period between 1873 and 1886 a great increase in the quantity of commodities produced, and the reduction in the cost of transport facilitated exchange of commodities, and increased the number of exchanges. Both these causes would, as we have seen in Chapter VI, tend to lower the general level of prices.

Simultaneously, there was a great increase in the demand for gold. This increase of demand was due to certain nations having changed from the silver standard to the gold standard; to other countries having returned from inconvertible paper to a metallic standard; and to the very great development of the resources of the United States, which gave rise to an increased demand for currency in that country.

The reduction in the cost of transport, which would have more effect in the case of bulky and heavy articles of small value in proportion to weight or bulk, and the reduction in cost of pro-

duction of certain articles, which must affect some countries more than others, altered the relative advantage in International Trade of many countries, and increased the demand for gold of those countries which under the new conditions must possess a generally higher scale of prices and wages.

The imposition of heavy protective duties had the same effect, since such duties, though involving a loss from an economic point of view, have the effect of raising the scale of prices in the country which imposes them.

The average yearly production of gold also fell off by some five millions sterling.

The additional demands for gold which I have indicated above were estimated by Sir Robert Giffen at two hundred millions sterling. Having regard to the quantity of gold money in the world, a new demand of this magnitude might be expected to have a substantial, and certainly an appreciable, effect on gold prices.

The movements of gold between different countries were very remarkable, the most striking feature being the quantity absorbed by the United States and the consequent reduction of supply available for other countries :—

Absorption of Gold by the United States.

Period.	Annual Average Value of			Average Annual Absorption.
	Total Production.	Net Exports.	Net Imports.	
	£	£	£	£
1866-70	10,602,000	8,089,000	—	2,533,000
1871-75	8,300,200	8,594,000	—	-293,800
1876-80	8,916,840	—	2,468,000	11,384,840
1881-85	6,708,000	—	4,425,000	11,133,080

Available Supply of Gold for Countries Outside the United States.

Period.	Annual Average Value of			Average Annual Consumption.
	Production Outside U.S.	Net Exports from U.S.	Net Imports to U.S.	
	£	£	£	£
1866-70	16,604,000	8,069,000	—	24,673,000
1871-75	15,960,000	8,594,000	—	24,554,000
1876-80	15,135,060	—	2,468,000	12,667,000
1881-85	14,096,000	—	4,425,000	9,671,000

The following figures showing the imports and exports of gold for France, Germany, and Great Britain are also instructive:—

Great Britain.

Average for the years.	Net Imports of Gold.	Net Exports of Gold.
	£	£
1858-60..................	3,795,000	—
1861-70..................	5,546,000	—
1871-76..................	3,345,000	—
1877-80..................	—	1,400,000
1881-85..................	—	468,000
1886	—	391,450

France.

Average for the years.	Net Imports of Gold.	Net Exports of Gold.
	Francs.	Francs.
1851-60	318,435,000	—
1861-70	191,014,000	—
1871-73	—	125,115,000
1874-78	415,472,000	—
1879-84	—	70,696,000

Germany.

Average for the years.	Net Imports of Gold.	Net Exports of Gold.
	Marks.	Marks.
1872-79	68,126,000	—
1880-85	—	11,483,000

The most striking feature in these returns is the net export of gold from Great Britain, France, and Germany during the later years, a result which should be considered in connection with the fact that during all these years there was a large consumption of gold in the Arts.

From the fact that gold was being exported from England, France, and Germany in the years between 1878 and 1886 and absorbed by the United States, it is evident that if these countries had had a different Standard of Value from that of the United States, their rates of exchange with the United States would have fallen just as the Indian Exchange and the price of silver fall. As these countries all used the gold standard the rate of exchange could not fall permanently below specie point and gold was exported.

The balance of indebtedness against these

countries was adjusted by exports of gold, which were necessarily accompanied by a fall in gold prices.

Bearing in mind that during this period there was a large consumption of gold in the Arts, which has been put as high as twelve and a quarter millions sterling yearly, and that there is always some amount of hoarding going on, it will be evident that there was an influence at work which must seriously affect the course of gold prices, either causing them to fall or to rise less rapidly than they would otherwise have done.

During the same period there would be some economy of gold due to an increase of Banking; I do not think it came to much, but that is merely a matter of opinion.

Having enumerated the causes which tended to affect the level of prices between 1873 and 1886, I make no attempt to estimate the amount of influence exerted by each of them, and will deal simply with results.

Between 1873 and 1886 gold prices fell largely, but wages did not fall. The general conclusion is perfectly clear. There was a great improvement in means of production, and the position of the wage-earners, as a whole, but not in all trades, improved. The improvement, however, did not take the form of a rise in wages. Commodities fell in price; wages remained the same or nearly the same.

These results show clearly the change that took place in relative prices and wages due to economic causes, and also the effect of the additional demands for gold on the average price and wage level. I see no reason why they should excite surprise, and no reason why anybody should challenge them. The facts of the case are on record, the causes and consequences of these facts have been ascertained, and it is of no real importance whether you hold that the change did, or did not, amount to "Appreciation" of the Standard of Value.

If there had been a substantial fall in wages as well as in prices it would have shown that gold, used otherwise than in conjunction with silver, had proved to be a bad standard of value, but as there was a great fall in prices and no fall in wages, it could only be said that gold, though far from being an ideal Standard of Value, had, at any rate, not been intolerably bad.

If prices remain the same while wages rise, all money payments, the amounts of which were fixed in the past, are discharged on the basis of handing over that amount of commodities which the money payment would have secured at the time its amount was fixed. If prices fall and wages remain the same, the obligation is discharged on the basis of handing over that greater amount of commodities which would

under the new conditions be produced by the amount of labour for which the money payment would have exchanged at the time its amount was fixed.

A perfect metallic Standard of Value is unattainable, but there can be no doubt that during the period in question a Standard of Value which caused money payments, fixed in the past, to be discharged on a commodity-basis rather than on a labour-basis would have been more advantageous for mankind.

"The world is always in bonds to the generations that have preceded. The industry, the activity, the enterprise of the generations upon the stage are heavily weighted by obligations to the past. These obligations cannot be repudiated, they cannot be intentionally lightened by Act of Government under impulse from the debtor class without social and economic retributions which will produce a mischief far outweighing any benefits which may be in view in such ill-advised measures. But when this effect, in no revolutionary degree, is brought about by natural means, I believe it to be wholly beneficial."[1]

The causes which produced the change in the purchasing power of gold between 1873 and 1886 may be summed up as follows:—

1. The cost of production of certain commodities was reduced. This reduction

[1] *International Bi-metallism*, by F. A. Walker.

would cause the prices of these commodities to fall and would produce changes in relative prices, but would have no effect on the general price level unless the quantities produced were increased.

2. There was a great reduction in the cost of transport. This also would produce no effect on the general price level, unless it led to an increase in the quantities of commodities produced, or to an increase in the number of exchanges.
3. The reduced cost of production and the reduction of cost of transport would probably, and did in fact, cause changes in the relative advantages of different countries in the International Trade of the world which would have the effect of altering the internal scale of prices and wages in the countries affected.
4. There was an increase in the quantities of commodities produced and an increase in the number of exchanges, both causes tending to bring about a fall in the general price level.
5. There were additional demands for gold due to the substitution of the gold for the silver standard in certain countries.
6. There were additional demands for gold due to changes from inconvertible paper to a metallic (gold) standard.

7. There were special demands for gold due to the great development of the United States of America. This cause is, to some extent, identical with that stated in 3.
8. There was some reduction in the yearly production of gold.

It would be of little practical value to speculate as to what would have happened if Bimetallism had been maintained. It has been the habit of Mono-metallists to ascribe all the economic gains since 1870 to the maintenance of the single gold standard of England and other countries. The Bimetallists, with as little reason, used to ascribe all economic disadvantages to the same cause.

In reality all the great economic changes that have been experienced since 1870 would have occurred in practically the same way whether the standard of value was Monometallic or Bimetallic. If Bimetallism had been maintained a par of exchange between the gold countries and the silver countries would have continued to exist. Gold prices would not have fallen so much as they did, and gold wages would have risen. Silver prices would have fallen somewhat, and I do not think silver countries would have gained thereby.

Opinion will differ as to the extent to which the people of the gold standard countries might

have profited if, while still retaining the benefit of all the Economic changes that have taken place they had escaped the heavy fall in prices. I believe their gain from this cause would have been substantial.

The fall in gold prices that took place after the rupture of the Bimetallic tie was alarming, as there was reason to fear that prices might continue to fall, and if the Purchasing Power of Gold had increased so far as to cause a material fall in gold wages, a very serious state of things would have arisen.

It seemed to me at the time that this result was not improbable, and I was not alone in holding this view. There was every probability that there would be a general adoption of the gold standard which would lead to additional demands for that metal, while the annual supply was falling off.

Sir Robert Giffen was strongly opposed to the extension of the single gold standard to India and other countries on the ground of the additional demand for gold that would in this way be created, and he recorded his opinion that it would be disastrous if new and considerable demands for gold were suddenly to arise.

All such apprehensions have been dissipated by the great increase in the production of gold that has since occurred. Notwithstanding the great extension of the gold standard we are now

experiencing, we have to fear in the immediate future "Depreciation" of gold instead of "Appreciation."

The world drifted into Bimetallism and drifted out of Bimetallism without foreseeing the probable consequences of either change. We are now drifting into a universal gold standard, and have gone a long way in that direction; so far, indeed, that there can be no turning back, but the great increase in the yearly production of gold has removed all ground for apprehension as to a possible fall in prices in the immediate future.

The following figures give, approximately, the world's production of gold in recent years:—

Year.	£	Year.	£
1886	21,000,000	1899	61,000,000
1887	21,000,000	1900	51,000,000
1888	22,000,000	1901	52,000,000
1889	25,000,000	1902	59,000,000
1890	24,000,000	1903	66,000,000
1891	26,000,000	1904	69,000,000
1892	29,000,000	1905	75,000,000
1893	31,000,000	1906	80,000,000
1894	36,000,000	1907	81,000,000
1895	40,000,000	1908	88,000,000
1896	40,000,000	1909	91,000,000
1897	47,000,000	1910	91,000,000
1898	57,000,000	1911	93,000,000

CHAPTER XV

SOME FALLACIES

In the ordinary business of life everybody treats the Standard of Value which he uses, whatever it may be, as fixed and invariable in value, and looks on all changes in price as being due to economic causes affecting commodities. No other course is possible, and this method of dealing with changes in prices and wages is, for practical purposes, perfectly sound and only leads to wrong results if we apply it to investigations into the general purchasing power of gold and its exchange relations with the material of other Standards of Value.

We are so accustomed to deal with the Standard of Value on these lines that even those persons who have given attention to the subject and are quite prepared to admit in so many words that there cannot exist a monetary standard which is invariable in value and can measure values as a yard-stick measures length, are unable to divest themselves completely of the prepossession and

sometimes relapse into the ordinary method of regarding the Standard of Value on occasions when the adoption of this view must lead to incorrect conclusions.

When silver began to fall relatively to gold a Select Committee of the House of Commons was appointed to "consider and report upon the Causes of the Depreciation of the Price of Silver and the Effects of such Depreciation upon the Exchange between India and England."

The terms of the reference to the Committee suggested that the change was in silver and assumed that it was the fall in the gold price of silver that caused the fall in the Exchange with India.

As I have shown, it was the fall in the gold price of commodities that caused the fall in the Indian Exchange, and it was the fall in the Indian Exchange and the fall in the Exchange with other silver-using countries that caused the fall in the gold price of silver.

The Committee made a very careful enquiry into the facts regarding the supply of, and demand for, silver, but, having been started on wrong lines, they failed to take any notice of the all important question of the supply of, and demand for, gold, and of possible changes in the level of gold prices.

The approximate figures of the supply of, and

demand for, silver which the Committee put forward are as follows:—

1872–5.

	£
Value of total production	54,700,000
Sold by Germany and Scandinavian Kingdom, about	8,000,000
Surplus Exports from Italy	8,000,000
,, ,, ,, Austria	4,000,000
	74,700,000

	£
Taken by India	9,100,000
,, France	33,500,000
,, Russia	4,000,000
,, Spain and Portugal	4,000,000
,, England	5,000,000
,, United States	7,600,000
,, Japan and the East	7,500,000
,, The East (other than India, China and Japan)	3,000,000
	73,700,000

Out of the total market supply of £74,700,000 worth of silver in the years 1872–5 France took £33,500,000 and it seems incredible that a supply of silver amounting to £41,200,000 in four years, of which about one-third was taken by countries that had not a silver standard, could have depreciated the Standard of Value of India, China, Japan, and the other silver-using countries by 20 per cent. Mr. Bagehot anticipated that the fall in the price of silver would cause a fall in the Indian Exchange and the Exchange with other silver-using countries, which, in its turn, would give rise to a balance of trade in their favour that would absorb all

the surplus silver. His forecast was not realised because, as I have shown, it was the fall in the Exchange with silver-standard countries that caused the fall in the price of silver, and the fall in gold prices was of itself more than sufficient to account for the total fall in the Exchange even on the assumption that no other cause had been at work.

The Majority of the Members of the Royal Commission on Gold and Silver also appear to me not to have treated gold and silver in the same way, and to have been unable to free themselves from the prepossession which all persons have in favour of the Standard of Value which they are accustomed to use.

They defined "Appreciation of Gold" as meaning a fall in prices due to causes affecting gold, and expressly excluded a fall in the prices of commodities due to an increase in their supply or a diminution in the cost of their production or transit.

This definition must necessarily lead to confusion of thought and incorrect conclusions, both because a reduction in cost of production of commodities has, of itself, no effect on the general level of prices, and because an increase in the quantity of commodities has, other things being equal, the same effect on the Purchasing Power of Gold as a proportionate reduction in the quantity of gold available

as money. They, then, pointed out that there had been in many cases both reductions in the cost of production and in the cost of transport, and increases in the total quantity of money, and they drew the conclusion that the whole, or nearly the whole, of the reduction in prices was due to causes affecting commodities, and not to "Appreciation of Gold."

As regards the possible effect of the increased demand for gold they urged that there had been great increases of economy in the use of gold owing to the extension of Banking, and they threw doubts on the theory that the quantity of gold has any serious effect on the general level of prices. They urged that the movements in the rate of discount during the period in question were not consistent with any considerable "Appreciation of Gold." They did not deny that there might have been some slight "Appreciation of Gold," as they defined "Appreciation," but they held that the change in the relative value of gold and silver was mainly due to the "Depreciation" of silver. As gold had increased in value relatively to silver and silver had fallen in value relatively to gold, and, as there had been little (if any) "Appreciation" of gold (as they defined "Appreciation"), they were driven to the conclusion that silver had "Depreciated," and in attempting to

account for this "Depreciation" of silver they found themselves in difficulties. We have seen that the Select Committee of 1876 could not discover any such surplus of silver as would account for the depreciation of the Standard of Value of more than half the population of the world by 20 per cent., and the Majority of the Royal Commissioners were in the same position. According to the figures laid before the Commission, there had not been any very important increase in the supply of silver to countries outside the United States.

The following are the figures of this supply:—

Years.	Annual Average Supply of Silver to all Countries Outside the United States. Kilograms.
1866–70	1,368,000
1871–75	1,924,000
1876–80	1,691,000
1881–85	1,972,000

If extra demands for gold to the extent of £200,000,000 sterling, together with a reduction of at least 20 per cent. in the annual production of gold, had practically no effect on the value of gold, as they held, it was difficult to suppose that the increased supply of silver above indicated could have depreciated silver by 25 per cent.

This difficulty they attempted to get rid of by reasoning which, with all deference to those who put it forward, seems to me wholly unsound.

They estimated the total amount of silver used as money in Europe and America at £352,000,000, of which a large portion was circulating at an artificial value as subsidiary coinage, leaving less than £100,000,000 circulating at its value as silver. The increased production of silver being £10,000,000 yearly, and as, in their opinion, sentimental considerations play a great part in determining price, the increase of £10,000,000 in the yearly production of silver when compared with the quantity of silver money circulating at its value as metal in Europe and America was sufficient to cause a great fall in the price of silver; this fall in price would ordinarily have led to a large export of silver to the East, but as commodities had fallen in price they took the place of silver as an export to the East and consequently silver did not go there.

The objections to this reasoning are:—

(1) Sentimental considerations have nothing to do with fixing the price of the great articles of trade, including silver, beyond causing temporary fluctuations which are very speedily followed by a reaction, if the fall is not justified by the statistical position.

(2) The increase of £10,000,000 a year in the production of silver takes no account of the large amount of silver taken off the

market by the purchases of the United States of America.

(3) If there had been a large surplus of silver on the market, nothing could have prevented it from going to India and the other silver standard countries, because there was no other place to which it could go, and no other use to which it could be put.

(4) It is impossible that silver which did not go to India could have operated to maintain Indian prices at a higher level.

The real explanation of what happened is, as I have already shown, that the fall in gold prices caused the fall in the gold price of silver. That fall in the gold prices of commodities, which was accompanied in many cases by a reduction in the real cost of production, explains the whole of the phenomena, and a recognition of it as the real cause of the fall in the price of silver clears away all difficulties.

The reasoning adopted by the Majority of the Royal Commissioners was merely an attempt, as ingenious as it was unsound, to explain a phenomenon of which the real cause was not understood. The criticisms which I have offered on it are directed, it will be observed, against the arguments by which they supported their main conclusion—not to recommend any change

in the gold standard of England—rather than against that conclusion itself.

To those persons who believed, as the Majority of the Royal Commissioners appear to have done, that gold practically never altered in value, and that the prices of silver and other commodities moved up and down in accordance with the laws of demand and supply, or even from sentimental causes, the mode of working of which is beyond my comprehension, the natural remedy for the fall in the price of silver appeared to be measures which would cause an increased demand for that metal.

To this end they recommended the repeal of the duty on silver plate and the issue of small notes based on silver in Great Britain, and suggested that negotiations might be entered into with other nations with a view to the more extended use of silver as money. As it happened, an Act providing for the more extended use of silver had been in force in the United States from February 1878, under which 2,000,000 dollars' worth of silver was purchased every month, or, in round figures, £4,800,000 sterling worth every year.

To those who have followed what I have said as to the cause of the fall in the gold price of silver it will be obvious that to restore silver to its old value in this way must prove an enterprise of extreme difficulty. The fall in the gold price of

silver was due to the fall in the gold prices of commodities, and to restore silver to its old gold value by increasing the demand for that metal necessitated the purchase of enough silver to cause a fall in silver prices in India and elsewhere of quite 30 per cent. This would have required the purchase not merely of the whole yearly production of silver, but probably of a certain amount of silver that would have been exported from the silver-standard countries. As there is always a large yearly consumption of silver in these countries for hoarding and for use as ornaments, I do not think the latter quantity would have been large, but it might have been of some magnitude for a time.

The Bimetallic tie had been broken at a very unfortunate time, namely, at a time when the production of gold was falling off and special demands for that metal were about to be experienced while the production of silver was about to increase. As a consequence the purchases of silver by the United States of America had less effect than they otherwise would have had. In 1890 an Act was passed in the United States under which 4,500,000 ounces of silver were purchased every month and put into circulation at a ratio of sixteen to one as compared with gold. On 1st January, 1894, the amount of money put into circulation in this way in the form of Silver Certificates and Treasury

Notes amounted to $461,627,165. These purchases of silver by the United States had a twofold effect. They tended to raise the value of silver and to lower the value of gold by substituting overvalued silver as currency in place of gold.

But the increase in the production of silver which was taking place more than kept pace with the increase in the demand by the United States, and though the economy in the employment of gold, due to the increased use of overvalued silver as currency, may have helped to stay the fall in gold prices, it did not cause them to rise. The Indian Exchange and the price of silver continued to fall and the United States found that the coinage of silver, if continued, would, before long, destroy their gold standard and leave them with nothing but overvalued silver. They had been exporting gold every year after 1887 and they were ultimately forced to stop purchasing silver. The total export of gold in the two years 1894 and 1895 exceeded thirty millions sterling.

As the fall in the gold price of silver was due to the fall in the gold price of commodities any attempt to restore the old par of exchange between the two metals by purchasing limited quantities of silver was bound to prove too great a burden for any nation that undertook it. So far as the interests of Bimetallism were concerned, the purchase of silver

by the United States was probably mischievous as it relieved the strain on gold and prevented a further increase in the purchasing power of that metal, such increase of purchasing power, or Appreciation of gold, if carried to a certain point, being the only cause that would have induced such countries as England and Germany seriously to take in hand the task of restoring the old system under which gold and silver were in joint use as the money of the world.

It has been argued that there could have been no Appreciation of Gold between 1873 and 1887, because the rate of discount was low during these years. It was said that a scarcity of gold must act on prices by reducing the supply of credit, and that consequently an era of falling prices should be accompanied by a high rate of discount. This argument, though plausible at first sight, possesses no force.

The first effect of an increased supply of gold is to lower the rate of discount. The consequent expansion of credit causes prices to rise, and this raises the general rate of profit.

The higher rate of profit leads to an increase in the demand for credit, and makes borrowers willing to pay a higher price for it.

The secondary effect of an increase in the supply of gold is, therefore, to raise the rate of discount, and it will be found that at a time

of rising prices the rate of discount is higher than at a time of falling prices. The average rate of discount depends upon the general rate of profit; the increase or diminution in the supply of gold produces only a temporary fluctuation, the general rate of profit being higher with rising prices than with falling prices.

The matter is discussed by Professor R. A. Lehfeldt in an article in the *Economic Journal* for March, 1912, in which he shows that the great discoveries of gold in California and Australia were followed by a period of rising prices and a higher rate of discount; that the great demand for gold after 1873 was followed by falling prices and a lower rate of discount; and that when prices began to rise again, after the great production of gold in South Africa and elsewhere, the rate of discount also increased.

An attempt was made by some Bimetallists to explain both the fall in the gold price of commodities and the fall in the gold price of silver by means of a different theory from that adopted by the majority of the Members of the Royal Commission on Gold and Silver.

It was said that when the Bimetallic tie was broken, silver fell in gold price from causes affecting silver. This fall necessitated a corresponding adjustment in the gold and silver prices

of articles exchanged between the gold and silver standard countries. Silver prices, from some cause, proved the more difficult to move, and consequently gold prices had to fall.

This explanation seems to me quite fanciful and to stand on no solid foundation.

Why did silver fall in price, from causes affecting silver, when the Bimetallic tie was broken? It could only have been from increased supply or reduced demand. That there was a reduction of potential demand is obvious, but India and other countries still maintained the silver standard and there was no unusual flow of silver to them, nor could any great stock of silver be found in the European market.

Assuming, for the moment, that silver fell in price from the cause just stated, why should gold prices have fallen rather than silver prices have risen? If silver is in such comparative abundance that everybody will give more silver than formerly for the same quantity of gold, why should that fact, taken by itself, cause everybody to give less gold for the same quantity of other commodities? It was sometimes assumed that there was an extraordinary degree of stability in Indian prices, but for this there was no foundation. Prices in India move up and down in obedience to the laws of demand and supply in exactly the same way as they do in other countries. Neither the Indian trader, nor the

Indian peasant, nor any other Indian that I ever met, is at all likely to accept an unduly low price for anything he has to sell. Nor is he more likely than a European or American to give more than he need do for anything he has to buy.

India was not a manufacturing country at the time, and is not in the present day, and great economic or industrial revolutions involving serious permanent changes in the prices of important commodities were not to be expected, but when Indian or foreign commodities come into an Indian bazaar, prices go up and down in precisely the same way as they do in London or New York and from exactly the same causes.

It may be said that a country which makes use of a large metallic currency, which hoards the standard metal, and which either withdraws coin from circulation in order to hoard it or pours coin into the circulation as circumstances may require, is not so likely as gold-standard countries to suffer from fluctuations due to causes affecting the Standard of Value.

This is true, but acceptance of the proposition implies that if there had been a great supply of silver, tending to cause a fall in the value of that metal, India could have absorbed an unusual quantity without any material change in silver prices. We know, however, that no such excessive quantity of silver went to India.

It is a purely arbitrary assumption to say that a fall in the value of silver caused a general fall in gold prices. A very large supply of silver, which was exported to silver countries, might cause a fall in the gold price of commodities exported from such countries, because they would have to be exported in increased quantities to pay for the increased import of silver, but such a change could neither cause a fall in general gold prices nor produce that long continued trade depression which was experienced between 1873 and 1886.

The theory just stated, like the theory put forward by the Majority of the Members of the Gold and Silver Commission to account for the two facts of the fall in gold prices and the absence of fall or smaller amount of fall in the case of silver prices, was defective because it failed to notice that the fall in the gold price of silver was due to the fall in Exchange, and that the fall in Exchange was due to the fall in the gold prices of articles exported to silver-using countries.

I shall now notice an argument which was employed by some Bimetallists, and by other persons also, which affords the best instance of which I am aware of the delusions to which even intelligent men are liable when they deal with the currency question.

It was said that when silver and gold

began to change in value the countries using the silver standard thereby acquired a great advantage in International Trade over countries which adhered to the gold standard. The argument was perfectly general in its nature, and was used with the object of proving that the country with the depreciating Standard of Value always gained this advantage. It is quite true that if two countries have different Standards of Value the one that has the better Standard will, so far as the Standard of Value is concerned, enjoy the greater degree of prosperity because production will be facilitated and the rewards of industry will be more equitably distributed. But the argument was stretched beyond this point and was held to prove that the one country would permanently drive the products of the other out of the international market. It was used in England by Bimetallists to show that the fall in the Indian Exchange unduly stimulated the manufacture of cotton goods in India and also the production of wheat in that country to the detriment of the English manufacturer and agriculturist. It was also used in India by persons who were opposed to Bimetallism as well as to the establishment of a gold standard in that country, because they dreaded the effect on the Indian export trade of a rising exchange or even of an exchange that ceased to fall.

It is beyond doubt that a fall in exchange

does, for a time at any rate, stimulate exports and check imports, and I shall give the explanation of this fact at a later period. In the first instance, however, I shall deal with the theory that a depreciating standard gives to a country a real advantage in the International Trade. This theory may be met by a number of arguments, any one of which is conclusive.

(1) If we consider the case of those countries that have used inconvertible paper to such an extent as to depreciate their Standard of Value, we find that they never derived any permanent benefit from the depreciation of the Standard either in their internal trade or in their foreign trade, and they were always glad to go back to a metallic standard.

(2) If, as we know to be the case, all trade is conducted as if under a system of barter, and if the rise and fall of prices and the alteration in the exchange are merely examples of the way in which the mechanism of the currency works in order to ensure that trade shall be so conducted, it is impossible that a rise or fall in exchange, can give any country an advantage over any other.

(3) If the effect of a fall in the exchange is to increase exports and decrease imports, it

would appear to involve a loss rather than a gain, for it cannot be to the advantage of a country to have to give more of its products in exchange for a reduced quantity of the products of other countries.

(4) There is no better established principle in Political Economy than that which asserts that International Trade is dependent on the relative cost of producing commodities in one country as compared with the relative cost of producing the same commodities in another country. In other words, the exchange of two commodities (say A and B) between two countries depends on the relative cost of producing A and B in one country as compared with the relative cost of producing them in the other country. As the relative cost of producing A and B in any country cannot be affected either by a fall in the exchange, or by a Depreciation or Appreciation of the Standard of Value in that country, it is obvious that neither of these changes can really affect the trade between the two countries.

The Committee to which was submitted in 1893 the proposal of the Government of India to introduce a gold standard into India, and of

which Lord Herschell was Chairman, dealt with the question in a different way. They observed that if the fall in the Indian exchange had the effect of stimulating exports and checking imports, it would follow that the exports would be unusually high when the exchange fell largely and *vice versa*, but they found the opposite to be the case.

I quote the passage in which they dealt with this question.

"It is said that the tendency of a falling exchange is to stimulate exports; that, inasmuch as more silver, *i.e.*, a higher silver price, is received in respect of the same gold price, whilst wages and the other factors in the cost of production do not increase in the same proportion, production becomes more profitable and is therefore stimulated. Assuming this to be true, the effect of each successive fall must be transitory, and can continue only until circumstances have brought about the inevitable adjustment. Although one may be inclined, regarding the matter theoretically, to accept the proposition that the suggested stimulus would be the result of a falling exchange, an examination of the statistics of exported produce does not appear to afford any substantial foundation for the view that in practice this stimulus, assuming it to have existed, has any prevailing effect on the course of trade; on the contrary, the progress of the export trade has been less with a rapidly falling than with a steady exchange.

For example, from 1871–2 to 1876–7 the gold value of the rupee fell constantly from 23·126*d.* to 20·508*d.* or about 11¼ per cent.; the exports of merchandise were actually less in the latter year than in the former, although in 1876–7 their rupee value exceeded by about 10 per cent. that of the exports of either 1870–1 or 1872–3. From 1878–9 to 1884–5, exchange was fairly steady, the average rates varying only between 19·961*d* and 19·308*d.* per rupee or about 3¼ per cent; and during those six years the exports rose by no less than 36½ per cent. Again between 1884–5 and 1888–9 the fall of the rupee was very rapid, from 19·308*d.* to 16·379*d.* or over 15 per cent., and the exports increased during those four years by 16½ per cent; but in the single year 1889–90, when there was a slight improvement in the exchange, the exports increased by more than 6½ per cent. It is said, too, that, whilst a falling exchange tends to stimulate exports there is a corresponding tendency to check imports. Here again statistics do not seem to show that diminished exports have been coincident with a lower exchange. Taking the same periods as before, from 1871–2 to 1876–7 when exchange fell 11¼ per cent., imports of merchandise into India increased by 17 per cent; from 1878–9 to 1884–5, when exchange was steady, the increase of imports exceeded 47 per cent.; between 1884–5 and 1888–99, when the rupee fell about 15 per cent., the imports were augmented by nearly 25 per cent.; while in 1889 90, when exchange slightly rose, the

imports were rather less than in the previous year. Upon the whole we cannot see any evidence that the effect of a falling exchange on the country at large, in influencing either exports or imports, has over a series of years been very considerable.

"Some trains of *a priori* reasoning would seem to lead to the same conclusions, and also to the further conclusion that, even if a fall in the gold value of the rupee does stimulate exports, the result is not necessarily to the benefit of India as a whole, though it may temporarily benefit the employer at the expense of the wage earner, because wages rise more slowly than prices."

The real, and, I think I may say, the obvious explanation is that the fall in Exchange was not the primary cause of the stimulus to exports, that the Exchange did not fall and could not fall until the balance of indebtedness turned against India, and that this balance of indebtedness caused the fall in Exchange and thereby produced the necessary adjustment by stimulating exports and checking imports. In this view of the case it is easy to understand why a falling Exchange should be accompanied by reduced exports and increased imports, and a rising Exchange by the opposite.

If the two countries had had the same Standard of Value, the fall in Exchange would have stimulated exports and checked imports in

exactly the same way; and if the fall had continued until specie point was reached, the material of the standard would have been exported and the permanent adjustment of the trade between the two countries would have been secured by some rise of prices in one country and some fall in prices in the other. As India and England had different Standards at that time, the adjustment was effected not by action on prices, but by a permanent alteration in the Exchange; in other words by a fall in the value of silver relatively to gold.

The argument as to the advantage of a fall in Exchange and a low Exchange was strongly pressed when the proposal to introduce a gold standard into India was under consideration, and I was told that the attempt to do so could only end in ruined factories and uncultivated fields.

The proposal to introduce a gold standard into India was one which might make the boldest hesitate, but I never had the slightest apprehension that it would permanently injure the foreign trade of India, or that if successful it would, in the long run, be other than beneficial to that trade. If the transfer had been made from silver to gold, at or about the exchange of two shillings for the rupee, I do not doubt that there would have been a great fall in Indian prices and a long continued

depression of trade, with consequences similar to those which had been experienced in England and other gold-standard countries, but probably more severe.

The precise form which the argument for a gain in the foreign trade of India from a fall in the Indian exchange used to take is worthy of notice.

It was assumed, and even laid down in so many words at the commencement of the argument, that the Indian Exchange fell *while everything else remained the same.* On this assumption, it was easy to show that the fall in Exchange stimulated Indian exports, and that the manufacturers or other producers in a gold standard country were placed at a disadvantage as compared with their competitors in a silver standard country. But the hypothesis on which the assumption was based was an impossible one. If everything else remained the same the Indian Exchange did not fall, and could not fall. It could only fall if the balance of indebtedness turned against India, and in that case the balance could only be redressed by an increase in Indian exports and a check to Indian imports, and the adjustment required to redress the balance would equally take place whether the Indian standard was silver or was gold.

In the former case, it would be redressed by a fall in the Indian Exchange, either temporary or

permanent as the case might require. In the latter case it would be redressed by a temporary fall in Exchange which, if it reached specie point, would lead to an export of gold, and permanent adjustment of the balance of indebtedness would be secured by a permanent fall in Indian prices or a permanent rise in prices in gold-standard countries, or partly by the one result and partly by the other.

CHAPTER XVI

THE CLOSING OF THE INDIAN MINTS TO SILVER

THE Report of the Royal Commission on Gold and Silver was as favourable to Bimetallism as could have been expected, but it was not followed by results of any practical value. The re-establishment of Bimetallism was impossible except by universal or almost universal International Agreement, and such agreement could not be obtained. No country had any objection to the re-establishment of a Bimetallic system by other countries, and every country would probably have been willing to assist to a limited extent, but England would not change her Standard of Value and Germany took the same view.

I had been a Member of the Royal Commission on Gold and Silver and in the end of 1888 became Finance Member of the Council of the Governor General of India. In that capacity I took the earliest opportunity (March, 1888) of formally stating my views as to the

future relations of gold and silver. I called attention to the extent to which the fall in the gold price of silver coincided with the fall in the gold prices of commodities and said that another fall in gold prices would probably be accompanied by a further fall in the Indian Exchange. I also pointed out that the situation existing at that time was not one of permanent equilibrium, and that there would either be continuous progress in the direction of demonetising silver and substituting gold, or that the world would revert to the old system of double legal tender. In the former case Indian financial difficulties would probably be greater in the future than they had been in the past; in the latter case we might have to pass through a severe financial and commercial convulsion caused by other nations attempting to restore the old ratio between silver and gold of 15½ to one.

In the interests of India, a sudden reversion to the old ratio of 15½ to one, as well as a continuous and progressive demonetisation of silver, accompanied by a fall in the gold value of the rupee to an unknown and unlimited extent, were alike to be deprecated. If there should be an International Agreement at some future time India ought to be a party to it in order to safeguard her own interests as far as possible.

If there was to be no International Agreement and the world was gradually to drift

towards the universal gold standard, India must either accept the consequences, whatever they might be, or choose the heroic and hazardous remedy of changing her Standard of Value from silver to gold.

In the financial years ending March 31st, 1887, 1888, 1889, 1890, and 1891, gold prices were fairly steady and so was the Indian Exchange.

In 1890 there was a material rise in the Exchange which was largely of a speculative nature, and due to the United States of America having passed a law providing for the purchase of 4,500,000 ounces of silver every month. As I have previously shown, gold and silver could not have been brought back to the old ratio of exchange by purchasing silver unless the operation was carried so far as to reduce prices in silver-standard countries by about 30 per cent.—an almost hopeless task. And what made the purchase of silver by the United States quite ineffective was the great increase which was taking place at the same time in the production of that metal. Notwithstanding the fall in the gold price of silver the yearly production was increasing rapidly, as the following figures show:—

Years.	Average Yearly Production of Silver.
	Ounces.
1861–70	39,000,000
1871–80	66,000,000
1881–1890	98,000,000
1891–93	161,000,000

The rise in the price of silver and in the Indian Exchange in 1890 which followed the increased purchases of silver by the United States, was mainly due to speculation and lasted for a very short time. The highest rate obtained by the India Office for bills in 1890–91 was 1*s.* 8·94*d.*; the lowest was 1*s.* 5*d.*

The results of this remarkable rise and fall in the value of the Indian Standard of Value are worthy of record. For a time trade between India and England was little more than gambling. The fluctuation in exchange determined the question of profit or loss. The rise in the gold price of silver and the subsequent fall were not accompanied by a simultaneous fall and rise in all prices and wages measured in silver. The wholesale prices of the articles of export felt the influence of the rise in silver at once. The fall in prices of these articles caused great trade depression. The appreciation of silver did not cause a high rate of discount and was not accompanied by a scarcity of silver in the centres of trade. On the contrary, the accumulation of silver in the Indian Banks was unprecedented and the rate of discount was the lowest that had ever been known.

The experience gained in 1890 threw light on arguments that had been used in the Bimetallic Controversy.

"It was shown that Appreciation of the Standard of Value is not necessarily attended by a positive and manifest scarcity of money; that it does not affect retail prices sooner than wholesale prices; that all prices and wages do not fall simultaneously; that it does not necessarily lead to a scarcity of coin in the Banks and is not invariably accompanied by a high rate of discount. The circumstances of the year 1890 were, however, quite exceptional and it would not be fair to argue that like consequences must always attend Appreciation of the Standard of Value."

It became evident from what happened in the year 1890–91 that the Bimetallic Controversy must soon be closed, and that it would probably end by the abandonment of silver as a Standard of Value and the universal adoption, sooner or later, of the single gold standard. The responsibility for any measures that might ultimately be adopted in India to meet this change in the Standard of Value of the world would rest on the Government of India and on the Secretary of State for India, but owing to my position as Finance Member of the Council of the Governor General, it was my duty to lay the facts of the case before the Government of India and to give them the best advice I could.

When the Indian Exchange and the gold price of silver began to fall, the closing of the

Indian Mints to silver, and the establishment of a Gold Standard in India, were advocated by more than one person. The authorities responsible for the welfare of India naturally shrank from the adoption of a policy of which the results were so uncertain and which might after all prove to have been unnecessary. In 1876 the Government of India rejected a proposal to close the Indian Mints to the unlimited coinage of silver. But in 1878 they recommended this measure to the Secretary of State for India. They proposed to introduce a gold standard at the Exchange of two shillings for the rupee. The proposal met with no support in England from the authorities who were consulted and was rejected by the Secretary of State for India.

When it was recognised that the fall in the gold price of silver had been accompanied by a fall in the gold prices of commodities, and not by a rise in silver prices, as had been generally anticipated, the objections to any change in the Indian Standard were greatly increased, and the question of a return to Bimetallism under an International Agreement held the field for a number of years. My early study of the question made me a strong opponent of any attempt to introduce a Gold Standard into India, especially at so high a rate of Exchange as two shillings for the rupee. I

was convinced that Bimetallism afforded the best solution in the interests of India, and I believed that its re-establishment by general International Agreement would be best for the whole world. As time went on the chances of a return to Bimetallism grew worse instead of better. The depression of trade and the other effects which attend any increase in the Purchasing Power of the Standard of Value wear off in time, and the gold-standard countries were accommodating themselves to the new conditions. They, in common with the rest of the world, had gained largely by the reduction in cost of transport and the lowering of the real cost of production which had taken place in many cases, and the opponents of Bimetallism pointed to this gain and used it as an argument in favour of the maintenance of the single gold standard, though, of course, gains of this nature would have been obtained under any Standard of Value. The great divergence in the relative value of gold and silver which had taken place was a serious obstacle to a return to Bimetallism. Some countries insisted on the adoption of the old ratio of 15½ to one and though I believe it would have been possible to go back to that ratio, its adoption would have involved very great disturbance of trade and finance for a time.

It was obvious to me that the United States

would soon have to choose between abandoning the purchase of silver and drifting into a silver standard, and I had little doubt that when the time came to make a final decision they would give up the attempt to bring silver to its old position and would adhere to the gold standard. India had suffered in the first instance from the great increase in the Purchasing Power of Gold. Notwithstanding the fall in the gold price of silver, the production of that metal was now rapidly increasing and notwithstanding the fall in the Indian Exchange the import of silver into India was increasing. There had been a distinct tendency in recent years towards a rise in Indian prices and complaints were heard from persons on fixed incomes.

Especially injurious would be the rush of silver and the fall and fluctuation in the Indian Exchange when America ceased to purchase the 4,500,000 ounces of silver which she was then taking off the market every month. It was of great importance that India, which was so closely connected with England, should have the same Standard of Value, and it was every day becoming less likely that this result could be attained in any other way than by India establishing a gold standard.

In the circumstances I have just explained, I was bound to reconsider the question of the introduction of a Gold Standard into India, and I

came to the conclusion that it was, in theory at least, a possible operation, that further discussion would throw no new light on the subject, that if the United States finally abandoned silver it was desirable to make the attempt, and that in any case the time had come when a final decision must be arrived at.

I was firmly convinced of the soundness of the Quantity Theory of Money and knew that if the unlimited coinage of silver was stopped, it was quite possible to reduce the amount of the rupee circulation to such extent as to bring the Indian Exchange to a par with gold at a rate of Exchange which could be permanently maintained. How great the necessary amount of reduction might be I could not tell.

There was a very large amount of rupees hoarded in India and when the rupee was given an artificial value these hoards might be thrown into circulation and render the process of the necessary reduction of the currency slow and difficult. I thought at one time that this would be the case, but fuller consideration brought me to the conclusion that as the Indian looked upon the rupee as the London Banker looks on a sovereign—namely, a thing invariable in value in itself—and would perceive no change in it when the coinage of silver was stopped, he would simply come to the conclusion that silver had become

cheaper and would as a rule retain the rupees which he had previously hoarded. For the same reason I was satisfied that the Indian would not think less of the rupee because it was over-valued in regard to silver and was convinced that he would receive it in payment as willingly and as freely as before.

There was, however, a considerable number of rupees in circulation beyond the limits of British India, and there would probably be a tendency to return them to the country of origin when they became of higher value than was the silver of which they were made. But the number of such rupees was not large and their existence did not constitute a serious difficulty.

Nor did I fear that there would be illicit coinage of rupees of full weight and purity to any serious extent. Other countries possessed over-valued silver coins and had not suffered in this way. To make the illicit coinage of rupees of full weight and standard profitable, a large number must be coined and any such undertaking would require a considerable expenditure on machinery and involve risk of loss of capital, since such operations could not be concealed for any length of time. Persons who have capital to lose do not engage in business of that nature. The rupee in India would certainly not be over-valued under the new conditions so much as

silver coins were overvalued in France, the United States, and elsewhere, and the illicit coiner, if there were such a person, would confine his operations to those countries where the largest profit could be made.

The question of the ratio at which the change from silver to gold should be made was one of extreme difficulty.

To any attempt to make the change at the old ratio of $15\frac{1}{2}$ to one, I was absolutely opposed. I doubted if the change could be made at all at that ratio and if the attempt to do so were made it would involve the most serious disturbance for a time of the foreign trade of India, and, if successful, would lead to a general fall in prices which would produce great distress and might prove so disastrous as to lead either to a change of ratio or even an abandonment of the attempt to establish a Gold Standard. A change to a Gold Standard at the ratio of $15\frac{1}{2}$ to one would also involve so large a reduction of the rupee currency that the measure might prove impracticable and would certainly require a long time before it became effective. The closer the ratio between the rupee and gold, chosen for the substitution of the gold for the silver standard, was to the market rate of the day, the less would be the disturbance to trade and to prices, the easier it would be to make the change, and the more quickly could it be carried out. The procedure

which seemed to me to be the safest and best was to take measures to stop the coinage of silver, to watch the result, and to be guided by circumstances in choosing the ratio of exchange from the silver to the gold standard.

Some persons advocated the immediate purchase of a large stock of gold, the declaration of the rate at which the exchange to the gold standard would be made, and an undertaking by the Government of India to give gold coins for rupees at that rate. This method seemed to me to involve too much risk and to be too uncertain in its results. It made it necessary to declare at once the ratio of exchange from the silver to the gold standard; the providing of a large stock of gold would have been both difficult and expensive; and there was no guarantee that it might not have to be all paid away in exchange for rupees without securing the establishment of the Gold Standard. Such a failure would have discredited the attempt to introduce a Gold Standard and might have led to the abandonment of the scheme. The final decision in the matter rested with the Home Authorities and they were more likely to accept the cautious measure of closing the Indian mints and being guided by experience afterwards than that of determining at once the future rate of exchange between the rupee and gold and borrowing in London an amount of gold which

would be sufficient to carry out the reduction of the rupee currency to an extent that would effectively establish the new rate of exchange. The amount which it might be necessary to borrow for this purpose could not be told beforehand.

The chief danger to the project for establishing a gold standard which I foresaw was the possibility that gold prices might continue to decline. I believed that the fall in gold prices had been the primary cause of the fall in the Indian Exchange, and I was convinced that if gold prices continued to fall, or again fell largely, the Indian Exchange would tend to fall still more, even though the unlimited coinage of silver was stopped, and that in such case it would be extremely difficult to establish a gold standard in India.

It was true that gold prices were still falling but the production of gold had begun to increase, and there was every prospect that it would increase very largely. The production of silver had been largely increasing for some time, and notwithstanding the heavy purchases by the United States, the import of silver into India had increased and Indian prices at length shewed a tendency to rise. If the United States gave up the purchase of silver the imports of that metal into India would largely increase, the Indian Exchange would fall still more, and there

would at last be a clear Depreciation of the Indian Standard of Value in the form of a general and excessive rise in prices. It was obvious that if an attempt were ever to be made to introduce a Gold Standard into India the time to do so had arrived.

By stopping the unlimited coinage of silver, India would escape some portion of the depreciation which had already begun to show itself, and if the Indian Mints were to be closed it was very desirable to do so before, or at any rate simultaneously with, the stopping of the purchase of silver by the United States. If it so happened that gold prices still continued to fall, it seems to me that the establishment of a Gold Standard in India might be practically impossible and probably would not in that case be even desirable. But if gold prices continued to fall, I did not believe that the Gold Standard could, or would, be maintained everywhere or anywhere and in that case the world would return to Bimetallism, which, for India at any rate, would be the best solution. If India stopped the coinage of silver, she would escape the great and sudden depreciation of silver which was about to occur, and if, subsequently, a gold standard was established she would make the change at probably 1*s.* 6*d.* or 1*s.* 4*d.* per rupee, or even at a lower rate, and in this way would escape the greater portion of that Appreciation of the

Gold Standard which had already occurred. If Appreciation of gold should continue the countries which already had the gold standard would have to bear the full amount of Appreciation, while India would have escaped to the extent of from 6*d.* to 8*d.* out of two shillings, and, in these circumstances, if it came to be a question of what countries could stand Appreciation for the longest time it seemed to me that India, with so much in her favour, would be likely to win.

A further question which I had to consider was the position of the poorer classes who had hoarded silver in the form of ornaments. In times of famine or distress persons who were in want of money sometimes sold their silver and I disliked the idea of doing anything that might weaken their position. I had had practical experience in 1866 of what famine in India meant, and though the famine in that part of India where I was serving was not what would be described as very severe the impression made upon me could not be effaced.

On the other side were the considerations that the very poorest classes, who would suffer most in time of famine, did not usually possess silver; if their silver exchanged for fewer rupees when the mints were closed to silver those rupees would possess a greater purchasing power and so would any rupees they might have hoarded. The extension of Railways and the organisation

beforehand of plans for affording relief had greatly reduced the risks of famine. For instance, the districts where I had seen the effects of famine in the year 1866 had since been penetrated by railways, and in case of need food could be poured into them from other parts.

Indian Railways and Irrigation Works were chiefly constructed with English capital, and construction would go on much more rapidly if India and England had the same Standard of Value. It seemed to me that the risk involved in unsettling the relation between silver and the rupee was one that might, under the circumstances, be taken, and I am glad to say that I have never seen any trustworthy evidence that the change made any serious or even appreciable difference in case of famine.

If the worst came to the worst and India could not establish a Gold Standard, and other nations did not adopt Bimetallism, the Indian Mints would have to be opened to silver again; but India would then be no worse off than if she had never closed them. No doubt there would have been a large amount of temporary disturbance, but it would not have been greater than she would have experienced if she had kept them open when the United States ceased to purchase 4,500,000 ozs. of silver every month. And when India opened her Mints

again to silver, she could have done so on such conditions as suited her best.

The closing of the Indian Mints appeared a very rash measure to many persons, but from what I have just said it will be seen that I did not make up my mind that the Mints should be closed without considering all sides of the question. The matter had engaged my attention for many years, and the arguments stated above, viewed in the light of after events, show that the closing of the Mints was a measure that in the long run might produce quite satisfactory results, would not be disastrous in any case, and was fully justified by the circumstances of the case.

Sound as the arguments for the closing of the Indian Mints now appear, and satisfactory as they appeared to me at the time, I could not forget the uncertainty that hangs over all attempts to forecast the future in regard to measures affecting the Currency and the Standard of Value, and my anxiety as to the possible results of that measure was extreme. I had tried to take into account and to attach due weight to every contingency, but it was always possible that something might occur which I had not foreseen.[1]

[1] Many persons who spoke with authority on questions connected with the Currency and the Standard of Value were opposed to the

Having once made up my mind as to the course which ought to be followed, it seemed to me only fair that I should let the Indian public and all persons interested in the question know what my views were. I had publicly advocated Bimetallism for many years and still believed in it, and if I were to accept, and even recommend, the adoption of a measure such as the closing of the Indian mints to silver, it was better that I should do so openly.

For this reason, in March, 1891, when bring-

closing of the Indian Mints, and prophesied nothing but disaster as the result of that measure. Five years after the closing of the Mints and when the measure was on the point of proving a success, a long letter on the subject from Sir Robert Giffen appeared in the *Times* of May 18th, 1898, which ended with the following words:

"I submit, then, that what is really in question is not, as the Indian Government supposes, a question of the best method of establishing a gold standard in India, but whether the establishment of such a standard is practicable at all, or practicable at any cost which India can afford. If this is impossible, then, the only alternative is to return to silver money. No greater evil than an artificial and managed currency can be inflicted on a country. It is not unreasonable to say that sooner or later the error committed in 1893 may have to be acknowledged and reversed.

"The highest political issues are also involved. One of the most dangerous things for a Government to do is to tamper with the people's money. Is it certain that the Indian Government can go on long with its present ideas about money without producing complications in the government of India itself? . . . ."

The same issue of the *Times* contained a letter from the Secretary of the "Ceylon Association" endorsing Sir Robert Giffen's views, while Mr. William Fowler lamented the disturbance which must be caused on the London Money Market by the closing of the Indian Mints to silver, and described that measure as "Money Murder!"

ing forward the Indian Budget for the year 1891–2, I made the following remarks:

"The recent action of the United States has, no doubt, to some extent, raised the price of silver and caused a rise in the rate of Exchange, but what India requires is not a high rate of Exchange rather than a low rate, but some system under which fluctuations in Exchange shall be neither great nor frequent, and shall oscillate round a fixed point. In this respect, we have, so far, lost rather than gained.

"It is held by some that a low rate of exchange, or at any rate a falling rate, stimulates exports from India, and is beneficial to the country, and, for proof of the correctness of their opinions, they point to the course of trade as it ebbs and flows daily before our eyes. With all deference to my friends who hold this opinion, I believe that it is one of the greatest delusions that ever gained possession of the human mind. . . . . Trade between different countries is essentially a barter of goods for goods, and its extent and nature are determined, in the long run, not by the Standard of Value in use in either country, but by the comparative cost of production of commodities in these countries. . . . The truth is that the apparent stimulus to, or apparent check on, exports which accompanies a fall, or a rise, in Exchange is followed in each case by a reaction of precisely equivalent magnitude,

or is itself the reaction which naturally follows a previous check or stimulus. It will probably be a surprise to most persons to learn that the total fluctuations downwards of Exchange since 1873 very slightly exceed the total fluctuations upwards, the difference being, I believe, not more than three per cent. While repudiating the theory that trade between England and India is benefited by the absence of a common monetary standard, I do not deny that there is such a thing as a good standard of value and a bad standard of value, or hold that the question as to what is the best standard is of no practical importance. What I contend for is that the theory of a beneficial stimulus to trade owing to fluctuations in Exchange between countries having different standards of value is an untenable and mischievous delusion. A sudden rise in Exchange such as we had this year will unquestionably check business for a time and cause a depression of longer or shorter duration. But trade must adjust itself in time to the new scale of prices and will then proceed as before. The existence of the Indian tea gardens depends not on the relative value of Gold and Silver, but on the fact that the people of England want tea and are willing to give iron, coal or piece goods in exchange for it. An alteration in the relative value of gold and silver neither weakens their desire for tea nor reduces the amount of goods which they are willing to give in exchange for it, and

cannot, therefore, in the long run, either stimulate or check the production of that article in India.

"The task which the United States has undertaken, of raising the price of silver by purchasing yearly a fixed, though large, quantity of that metal, is one which, if undertaken by any other nation, would, I feel convinced, result in disaster; but so great is the wealth of that country, and so rapid its growth, that it would not be safe to say that its efforts must fail. We cannot blame the United States for adopting the course which seems best for its own interests, but I venture to think it would have been better to have at once adopted the unlimited coinage of silver . . . .

"If the United States should adopt free coinage of silver, it is possible that, in time, the other nations of the American Continent would follow its example, but, whether they did so or not, I should expect that the adoption of free coinage by the United States would lead to much greater stability in the relative value of gold and silver than we have experienced in recent years, though I am unable to say what the relative value of the two metals might prove to be under such a system. In that case it would probably be best for India to maintain the free coinage of silver for an indefinite period in the hope that one day a final solution would be obtained."

"On the other hand, if the United States should abandon its attempts to maintain silver as a

monetary standard, and should put a stop to its purchases of that metal, a position of serious danger would be created for India. So long as any reasonable hope of a satisfactory settlement of the currency question remains, I think it would be unwise for India to adopt a gold standard, but the circumstances would be entirely changed if the United States altogether abandoned silver, and the question whether India should not in that case simultaneously close her mints to silver is one that deserves serious consideration. I have no right to commit the Government of India to any opinion on the subject, but it is my belief that in case of necessity the gold standard could be introduced into this country, and that, if America altogether abandons silver, it would probably be best that India should change her Standard of Value. The risks would be considerable and the sacrifices heavy, but almost anything would be better than to accept violent and continual fluctuations in Exchange as our inevitable lot for all time, with the prospect of a fall in the value of silver of quite indefinite amount. I mention the matter, not because there is any intention of taking steps in this direction at the present time, but because it is right that the Government of India and the Indian public should clearly understand what they may have to face in the future, and that they should make up their minds as to the course to be followed under certain conditions. If the United States abandons silver as a monetary

standard, the disease will have run too far to be stayed by mere palliatives and the patient may any day be called on to choose between a difficult operation and lifelong disease. If such a change is ever made it will be found easiest and safest to adopt a gold standard at or about the exchange of the day rather than to attempt to establish a higher rate. The great mass of the currency in ordinary use in India would continue to be silver as at present.

"The question of the future of silver possesses not merely a speculative, but an eminently practical interest in India. I have long held the opinion that however distasteful to the majority of men currency questions may be, and however unwilling we may be to undertake reforms which affect the Standard of Value, the perpetually recurring evils flowing from a difference of monetary standard between India and the other countries with which her financial and commercial transactions are so important, cannot and should not be endured for ever, and that sooner or later a final solution of the problem must be found, and I am unable to discover any permanent remedy for the evils which, day by day, and year by year, press themselves upon our attention in India, except either the general adoption of the system of double legal tender or the extension of the single gold standard." [1]

[1] Lord Cross, who was at that time Secretary of State for India, officially disapproved of what I had said on the ground that a

These remarks and the serious condition of things to which they called attention led to a determined effort on the part of those members of the Indian public who took an interest in the question to have the matter finally settled in one way or another, and in June, 1892, the Government of India unanimously recommended to the Secretary of State for India that, if arrangements could not be made by International Agreement or otherwise for protecting the interests of India, the Indian Mints should be closed and measures adopted having for their object the introduction of a Gold Standard into India.

The proposal was not received favourably by the Home Authorities, and some correspondence took place between the India Office and the Government of India, but the time

Member of the Government of India ought not to advocate measures that were opposed to the views entertained by the majority of his colleagues, but he made the mistake of pronouncing judgment before he had ascertained the facts of the case. The Members of the Government of India in 1886 had been opposed to the establishment of a gold standard, but not a single Member of the Government of India of 1886 continued to hold office in 1892, and the Government of India was no longer opposed to the attempt to introduce a gold standard into India. A year later when the Government of India formally expressed its opinion on the question, it was discovered that every other Member of the Government was in favour of more prompt measures for the establishment of the gold standard than I was.

The Viceroy always sees the Financial Statement before it is delivered, so that nothing can appear in it to which he objects.

for discussion had passed and the Government of India pressed for a final decision of the question.

In October, 1892, the Secretary of State for India referred the proposals of the Government of India to a Committee of which the Chairman was the late Lord Herschell.

The proposals recommended by the Government of India had been drawn up by me and were to the effect that the Indian Mints should be closed to the unlimited coinage of silver and no further steps taken until the effect of closing the mints had been ascertained.

The ratio at which the change from the silver to the gold standard should be made was subsequently to be settled, and it was said that a ratio based on the average price of silver during a limited period before the Mints had been closed would probably be the safest and most equitable. When this ratio had been settled, the Mints were to be opened to the coinage of gold at that ratio and gold coins were to be made legal tender to any amount.

If the closing of the Mints to silver did not of itself prove sufficient in time to establish the desired rate of exchange, steps would have to be taken to reduce the amount of the rupee currency.

Fears had been expressed in India that the closing of the Mints to silver might be followed by a sudden and injurious rise in exchange. In order to allay apprehension on this point, the Government of India proposed to take power to make English gold sovereigns legal tender, if necessary, to an unlimited extent at a rate not exceeding 1*s.* 6*d.* for the rupee. In this way the exchange would be prevented from rising above a par of 1*s.* 6*d.* for the rupee.

The Report of Lord Herschell's Committee is dated 31st May, 1893, and its recommendation was as follows :—

"While conscious of the gravity of the suggestion, we cannot, in view of the serious evils with which the Government of India may at any time be confronted if matters are left as they are, advise your Lordship to overrule the proposals for the closing of the mints and the adoption of a gold standard, which that Government, with their responsibility and deep interest in the success of the measures suggested, have submitted to you.

"But we consider that the following modifications of these proposals are advisable. The closing of the Mints against the free coinage of silver should be accompanied by an announcement that, though closed to the public, they will be used by the Government for the coinage of rupees in exchange for gold at a ratio to be

then fixed, say 1*s.* 4*d.* per rupee: and that at the Government Treasuries gold will be received in satisfaction of public dues at the same ratio."

The only modification of the proposals of the Secretary of State for India made by the Committee, was the substitution of 1*s.* 4*d.* for 1*s.* 6*d.* as the limit to be placed, in the first instance, to the possible rise in the gold value of the rupee. It was in itself a reasonable modification but it had no practical effect, as the rupee fell in value instead of rising when the Mints were closed.

The Secretary of State for India accepted the recommendations of the Government of India as modified by the Committee, and on 26th June, 1893, the necessary legislation was passed by the Government of India. It provided for the closing of the Indian Mints to the unlimited coinage of silver, and for the issue of rupees at these mints in exchange for gold at the rate of 1*s.* 4*d.* per rupee. The settlement of the permanent rate of exchange between gold and the rupee, the making of gold coins legal tender, and the other measures necessary for the final and effective establishment of a gold standard in India, were to be provided for by future legislation in the light of the experience that would be gained by a study

of the effects that followed the closing of the Mints.

At the time the Mints were closed, it was held by some classes in India that the mere stopping of the unlimited coinage of silver would be sufficient to raise the exchange at once to 1*s.* 4*d.* per rupee and to maintain it there. There was no good ground for this belief, and when introducing the Bill for closing the Indian Mints, I took the opportunity of warning the Indian public that it was impossible to predict the immediate effect of closing the Indian Mints, and that we might have a long struggle before the Indian Gold Standard was made effective either at 1*s.* 4*d.* per rupee or at any other rate.

My warning fell on deaf ears, and when the Mints were closed and an exchange of 1*s.* 4*d.* was not secured at once, an agitation was set on foot to force up Exchange by inducing the India Office to withhold Council Bills. It is always desirable that the India Office should meet the demand for Council Bills—selling freely when the demand is strong and reducing the amount put on the market when the demand falls off—but any attempt to force the Exchange to a height which market conditions did not justify had always ended in failure when it had been tried in the past. The attempts to force the

exchange to 1*s*. 4*d*. had to be abandoned, with the result that the Secretary of State for India drew only £9,530,000 in 1893–4, as against £16,532,000 in 1892–3 and £16,905,000 in 1894–5, while the average rate of exchange which he secured was only 1*s*. 2·546*d*. per rupee.

I quitted Office in November, 1893, and was succeeded by Sir James Westland, on whom fell the heavy burden of managing the Indian finances during the period of transition.

CHAPTER XVII

THE ESTABLISHMENT OF A GOLD STANDARD IN INDIA AND THE RESULTS OF THAT MEASURE

In the years immediately following the closing of the Mints the conditions were unfavourable for the establishment of the Gold Standard. The holding up of Council Bills in 1893–4 was a bad send off; the repeal of the Sherman Act by the United States, in November 1893, caused, or was accompanied by, a widespread depression in trade, and the imports of silver into India during that year were very heavy, amounting to nearly 54½ million ounces, and valued at Rs. 13,71,98,000.

In 1894 it was found necessary to impose import duties for purposes of revenue; in 1896–7 and 1897–8 the country suffered from famine, and large expenditure was incurred in war on the North-West Frontier. In 1896 plague broke out at Bombay—having no doubt been introduced from China—and spread over the whole country. It still affects India, and has caused an appalling mortality.

A study of the financial history of India from 1893 to 1899 shows the special difficulties with which Sir James Westland had to contend, but when he resigned office, in 1899, he had the satisfaction of knowing that the crisis was over, and that the gold standard of India had been placed on a sound basis.

For the year 1893–4 there was a deficit of Rs. 1,54,69,000, for 1894–5 a surplus of Rs. 69,31,000, for 1895–6 a surplus of Rs. 1,53,39,000, for 1896–7 a deficit of Rs. 1,70,50,000, for 1897–8 a deficit of Rs. 5,35,92,000, for 1898–9 a surplus of £2,640,000, and for 1899–1900 a surplus of £2,744,000.

The drawings of the Secretary of State for India, and the rate of exchange obtained for these years, were as follows:—

Year.	Drawings.[1] £	Rate of Exchange. per Rupee. d.
1893-4	9,530,000	14·546
1894–5	16,905,000	13·100
1895–6	17,664,000	13·638
1896–7	15,526,000	14·450
1897–8	9,506,C00	15·406
1898–9	18,692,000	15·978
1899–1900	19,067,000	16·067

Although the rate of exchange fell after the closing of the Mints in 1893, it did not fall in proportion to the fall in the gold price of silver, and after 1894–5 there was steady progress towards the ratio of 1*s.* 4*d.* per rupee. In order

[1] These figures represent the amounts actually received by the Secretary of State in each year.

to accelerate this progress, the Government of India proposed to the Secretary of State, in March, 1898, that money should be borrowed to form a gold reserve and that, if found necessary, special steps should be taken to reduce the relative redundancy of the currency by calling in and melting down silver rupees. The proposals of the Government of India were referred, in April, 1898, to a Committee of which Sir Henry Fowler (Lord Wolverhampton) was Chairman. This Committee made its report on 7th July, 1899.

While the Committee was sitting the Indian Exchange had been rising, and had at last reached 1*s.* 4*d.*, while £2,230,000 in gold had been paid into the Indian Treasury in exchange for silver rupees, though the drawings of the Secretary of State for India amounted to £18,692,000 in 1898–9.

The proposals of the Government of India had not been very happily framed, and proved to be unnecessary, as the mere closing of the Mints for five years had made the Gold Standard effective at an exchange of 1*s.* 4*d.* for the rupee. In view of this alteration in the situation, the Committee recommended:—That the permanent rate of exchange should be fixed at 1*s.* 4*d.* for the rupee, and that gold should be made legal tender.

The Committee also recommended that the

profit made by the coinage of new rupees at the rate of fifteen rupees for one sovereign should be used to form a gold fund to secure the convertibility of rupees into sovereigns at the same rate, and that the Indian Mints should be opened for the coinage of gold.

Up to the present date the Indian Mints have not been opened to the coinage of gold. It was found that gold coins did not circulate freely, and it was more economical to allow rupees to circulate and to accumulate a gold reserve out of the profit obtained by the issue of silver rupees in exchange for gold at the rate of 1*s.* 4*d.* for each rupee. This reserve could be used to support the value of the rupee currency. The profit on the coinage of silver rupees was credited to a Gold Reserve Fund, with effect from 1st April, 1900.

On 15th September, 1899, the sovereign and half-sovereign were made legal tender to any amount.

As the closing of the Indian Mints to silver for five years had proved of itself sufficient to establish a gold standard in India at the rate of 1*s.* 4*d.* for the rupee, there was nothing left for the Government of India to do except to make the necessary arrangements to meet the various difficulties of minor importance that were experienced from time to time.

After the exchange had risen to 1*s.* 4*d.* per rupee progress was rapid. It had always been contemplated that when gold was received by the Government of India in exchange for rupees, it should, if not taken out by the public, be held as a portion of the Paper Currency Reserve. Under this arrangement, rupees could be given at once from that Reserve when gold was tendered, and the Government of India would escape the cost of either holding gold which the public would not receive or of shipping it to England. Progress however was so rapid, and so much gold was tendered, that there arose a serious danger that the stock of rupees might run short. By working the Mints at high pressure this difficulty was successfully met, and, as a precaution, it was decided to hold in the form of silver rupees £4,000,000 of the profit on the issue of silver rupees in exchange for gold as a special reserve to meet sudden demands. This gave a reserve of sixty millions of silver rupees without causing additional expenditure, but of course it reduced the available Gold Reserve by an equivalent amount. The designation of the Gold Reserve Fund was consequently altered to Gold Standard Reserve.

As gold did not circulate freely in India it would have been wasteful to force the public to send gold to India to be exchanged for rupees,

when the gold could only be made useful by being transmitted to London. On this account it was decided to receive gold in London from time to time as well as in India and to pay for it by drafts on the Indian Treasury, the drafts being issued at the exchange of 1*s*. 4*d*. or 1*s*. $4\frac{1}{32}$*d*. per rupee, according to the date of payment.

Power was also taken to hold a portion of the Indian Paper Currency Reserve in London, either in the form of gold or of gold securities. By so doing, it became possible, in case of need, to use the gold and gold securities in the English portion of the Paper Currency Reserve to meet the current requirements of the Secretary of State for India, an equivalent amount in rupees being simultaneously transferred to the Paper Currency Reserve in India.

The Indian Paper Currency Reserve has always been much more than sufficient to secure the convertibility of the Paper Currency under any contingency that was likely to arise, and there is no objection to holding the gold securities of the Paper Currency Reserve in London, as it is in the London Market that they would, in case of need, be exchanged for gold. The holding of Gold belonging to the Paper Currency Reserve in London instead of in India is open to objection, but the objection is rather theoretical than

practical. The Government of India is bound to cash the Currency Notes even if the Reserve proved insufficient.

In 1907, it was decided on the advice of the Indian Railway Finance Committee to devote every year half the profit on the coinage of rupees to capital expenditure on the construction of Railways, and a sum of £1,123,000 was actually transferred in this way. Subsequent events led to this proposal being held in abeyance.[1]

In August, 1907, a check was experienced. Exports fell off while imports did not diminish in proportion; a financial and commercial crisis occurred in the United States in October and led to a great demand for gold for that country. Exchange fell, and at one time went as low as 1*s.* $3\frac{11}{16}$*d.* for the rupee. The gold held by the Government in India was practically exhausted and the Government of India sold bills on the Gold Standard Reserve in London at 1*s.* $3\frac{29}{32}$*d.* withdrawing the par amount of the Bills from

[1] I was a Member of the Committee which made this suggestion. It met with much opposition, but was quite reasonable. It makes, practically, no difference whether you reduce your borrowing by using a portion of the Gold Reserve for Capital Expenditure on Railways, or maintain your borrowing at its full amount, and invest the whole of the Gold Reserve in gold securities. In the former case you can borrow in case of need up to the amount which has been used to reduce borrowing and still be in quite as good a position as if the whole of the Gold Reserve had been invested. The reduction of the amount borrowed in London strengthened the Indian Exchange.

circulation and placing the rupees in the Indian Gold Standard Reserve. The total of Bills sold in this way came to £8,058,000 in the five months April to August, 1908. The placing of the par value of the Bills in the Indian portion of the Gold Standard Reserve reduced the Indian Currency by 120 millions of silver rupees.

The Secretary of State was, also, unable to draw Bills to meet his requirements without lowering the exchange, and he met his wants partly by the issue of India Sterling Bills and partly by using the gold in the London portion of the Paper Currency Reserve, an equivalent amount of rupees being simultaneously withdrawn from circulation in India and placed in the Indian Paper Currency Reserve.

The crisis was over by September, 1908, but the strain it imposed on the Gold Standard Reserve will be shown by the following figures which give the amount of gold and gold securities held on 1st August, 1907, and 1st September, 1908, respectively :—

Sterling Assets of the Government of India, excluding Treasury Balance in England.

	On 1st Aug. 1907.	On 1st Sept. 1908.
	£	£
Gold held in India	4,589,000	1,116,000
Gold held by Secretary of State on account of Paper Currency Reserve	6,205,000	1,705,000
Value of Gold Securities held in England for Gold Standard Reserve (Face Value)	14,442,000	7,342,000
Gold Securities held in England on account of Paper Currency Reserve (Face Value)	1,435,000	1,495,000
Total	26,671,000	11,658,000

The reduction in gold assets was as nearly as may be £15,000,000 sterling, but the lowest point was not reached on 1st September, 1908.

The gold assets were at their lowest point on 22nd January, 1909, when they came to £8,963,000, so that the total drain may be taken at seventeen and three-quarter millionss terling, and the untouched balance at nine millions sterling.

There was at the same time, of course, a very large accumulation of silver rupees in the Indian portion of the Gold Standard Reserve, but this could only have been made available to support the Gold Standard by being sold for gold and could only be sold at its value as metal.

No person who had experience of the course of Indian trade could have doubted that such a

crisis would occur sooner or later, and similar crises must be expected in the future. But they will be only temporary, and even though the gold in the hands of the Government should be exhausted and the exchange should fall below specie point, the fall will be only temporary, and exchange will rise again to the old figure.

The soundest guarantee for the permanent maintenance of the Gold Standard in India is that the rupee currency is in ordinary times just sufficient to maintain the exchange at a level of 1*s.* 4*d.* per rupee, and that as population grows and wealth increases there is a steady demand for more currency, while no increase can be made to the total circulation except at a cost of 1*s.* 4*d.* for each rupee. As time goes on the danger of a heavy fall in exchange will tend to diminish while the Gold Standard Reserve and other available gold will tend to increase.

What happened in 1907–8 led the Government of India to review the opinion previously held as to the amount of gold that would be necessary to maintain the Gold Standard. Before the mints were closed in 1893 I had estimated that £15,000,000 would be sufficient when the currency had been so reduced, relatively, as to give in normal times the rate of exchange which it was desired to maintain permanently. Since that date the import and export trade of India has increased, and so has the aggregate amount of

Council Bills, as well as the amount of the rupee currency. These are causes which make it necessary to increase the gold reserve. In the light of past experience, the best authorities are now disposed to place the amount at £25,000,000.

The method now adopted to maintain the gold standard seems to me satisfactory. There is no possibility of the exchange rising materially above 1*s.* 4*d.* so long as the Secretary of State is prepared to sell drafts on India at a suitable rate of exchange, and the Government of India to receive gold at 1*s.* 4*d.* for the silver rupee.

A reserve is maintained in the form of gold and gold securities, and this is used to prevent the exchange falling materially below 1*s.* 4*d.* If the Government of India sell Bills on London they thereby produce a two-fold effect. The amount of the Bills counts in the International Trade as an equivalent increase of exports, and tends to maintain exchange. As the Government of India simultaneously withdraws the par amount of the Bills from circulation, they contract the currency and such contraction tends by lowering prices to increase exports and diminish imports.

When the Secretary of State for India meets his requirements by withdrawing gold from the Paper Currency Reserve or from the Gold Standard Reserve, instead of by drawing Bills on the Government of India for the amount he requires, he affects the International Trade in

the same way. The reduction in the amount of Bills drawn is equivalent to an increase of an equal amount in the exports from India, and as the Government of India simultaneously withdraws rupees from circulation and places them in the Indian Paper Currency Reserve or in the Indian portion of the Gold Standard Reserve, there is a corresponding contraction of the currency with the usual effect on prices.

The process just explained is precisely the same as that which takes place between two countries both of which have a Gold Standard and a gold currency.

If the balance of indebtedness turns against one of these countries the exchange falls, and when specie point is reached gold is exported.

This export of gold has in the first place the same effect on the International Trade as if it had been an export of goods; it helps to settle the balance of indebtedness.

In the second place it tends to lower prices in the country of export and to raise them in the country of import and in this way to bring about a permanent change of such nature as to make the exports and imports of each country sufficient to settle the balance of indebtedness.

It is true that in so far as he holds Gold Securities in England, and not gold, the Secretary of State for India does not, when a crisis occurs, release any gold to relieve the

London Money Market, and it is conceivable that his failure to do so might tend to prolong for a short time a condition of things having an unfavourable effect on the Indian Exchange. The responsible authorities, however, hold that the gain in interest from holding gold securities instead of gold more than counterbalances any possible or probable disadvantage, and I see no reason to doubt that from the Indian point of view their opinion is sound. The London Money Market would no doubt prefer to see a large reserve in gold.

It will be obvious from what I have said that the drawings of the Government of India on the Gold Standard Reserve in London and the use by the Secretary of State of the gold in the Paper Currency Reserve to meet his ordinary liabilities, accompanied as these measures are by equivalent contraction of the Indian Currency, have precisely the same effect on the exchange as would be produced if the Indian Currency were composed of gold and a portion of that currency was exported from India to England—with two exceptions of no great importance. The first is that just noted; namely, that when the Secretary of State for India sells Gold Securities to acquire the means of meeting his ordinary liabilities, he adds no gold to the available supply in London. The second is that the total amount of the Gold Standard

Reserve is only the profit on the issue of a certain quantity of rupees, and that if gold coins to the face value of the same amount of rupees were circulating in India a greater amount would be available for reducing the exchange by being exported and made available in London as an addition to the gold supply.

On the other hand there is the saving due to the investment of a portion of the Gold Standard Reserve and there is the certainty that the amount of the Gold Standard Reserve is always available, whereas gold supposed to be circulating in India might not be available for export unless the amount so circulating formed a large, or at least a substantial portion, of the total circulation.

The plan which is at present adopted to maintain the Gold Standard by buying and selling Bills in some respects resembles that originally proposed by the late Mr. A. M. Lindsay, Deputy Secretary of the Bank of Bengal, as a means of establishing a Gold Standard in India.

Before the Indian Mints were closed, but in what year I cannot now recollect, Mr. Lindsay sent me a copy of his pamphlet, which impressed me by the knowledge of the subject which he evidently possessed, and led to my entering into communication with him.

When called upon to suggest a procedure for establishing the Gold Standard in India, I did not adopt his plan because, as I have already said, to

have done so would have made it necessary to determine the permanent rate of exchange at once, and also to decide what amount of gold would be sufficient as a reserve to maintain that rate of exchange. In view of the great extent of the Indian rupee currency and of the amount of rupees hoarded in India, which might be thrown into the currency if the rupee was given an artificial value, it would have been unsafe to have attempted to decide these matters before experience had been obtained of the results of closing the Mints. In two articles published in the Bankers' Magazine of 1892, Mr. Lindsay expressed the opinion that a reserve of £4,000,000 in gold in London, supplemented possibly by a further £2,000,000, would be sufficient, but it is clear from what happened in 1907-8 that such a reserve would have been insufficient. As exchange fell in 1894-5 to 1*s.* 1*d.* per rupee the Gold Reserve that would have maintained it in the neighbourhood of 1*s.* 4*d.* must have been larger than Mr. Lindsay supposed, and if 1*s.* 6*d.* had been chosen as the rate of exchange, the Reserve must have been still larger. Since exchange fell in 1894–5 to 1*s.* 1*d.* per rupee, it is difficult to say what amount of Gold Reserve would have sufficed to maintain a rate of 1*s.* 4*d.* I do not think it would have been less than £20,000,000 and possibly it might have been considerably more, while it should be

recollected that there is, in practice, a limit to the Reserve of Gold which can be used to contract the currency. That contraction cannot be carried out to an unlimited extent without producing wide-spread distress, and I should not have liked to try the experiment of keeping the exchange at 1*s.* 4*d.* in 1894–5 by means of a limited gold reserve. Mr. Lindsay, at a subsequent date, raised his estimate of the amount of gold that would be required to £10,000,000. In any case I was not prepared to run the risk of fixing the permanent rate of exchange at once and raising a gold loan to establish a gold reserve, and of finding afterwards that the reserve was not sufficient for the purpose. Any such result might have led to the final abandonment of the attempt to establish a Gold Standard in India.

For the reasons I have given it seemed better, and was certainly safer, to close the Mints and be guided in all subsequent measures by the experience that would thus be gained. When it became evident that the amount of the Indian Currency had been so reduced, relatively, that it was about sufficient to give an average exchange of 1*s.* 4*d.* per rupee, and that gold coins would not circulate freely in India for some time, no more economical plan than that now in force could have been adopted; it came into use by a natural process and its adoption was almost compulsory so long as gold did not

circulate freely in India and form a substantial portion of the Indian Currency.

Gold was accepted by the Secretary of State for India in exchange for drafts on India and a portion of the Gold Standard Reserve was placed in London because it was more economical to do so than to force the public to send the gold to India with the result that the Government of India had afterwards to return it to London. When the crisis of 1907-8 arose, the Government of India steadied the exchange by selling Bills on London at a fixed rate against the Gold Standard Reserve. If that Reserve had been in India, the Government of India would have had to send it to London. The investment of a portion of the Gold Standard Reserve in gold securities was an economical measure.

A slightly different system for establishing a Gold Standard without a gold currency had been put forward by Sir Lesley Probyn. He recommended that gold should not be made a legal tender in India, but that the Government should hold a reserve of gold and be prepared either to receive gold in exchange for currency notes of not less than Rs. 10,000 each, or to pay gold in exchange for notes of not less than Rs. 1,000 each. This proposal for the introduction of a Gold Standard into India as well as Mr. Lindsay's proposal and the plan actually adopted was founded on a belief in the sound-

ness of the Quantity Theory of Money and the three proposals did not really differ from each other in principle.

The improvement in the financial position of the Government of India and the increase in the material prosperity of India since the year 1897–8, when the Gold Standard became effective, have been very remarkable. The following table shows the surplus or deficit in every year since 1897–8.

Surplus or Deficit.

	Surplus.	Deficit.
	£	£
1898–99	2,640,000	
1899–1900	2,774,000	
1900–01	1,670,000	
1901–02	4,950,000	
1902–03	3,069,000	
1903–04	2,996,000	
1904–05	3,456,000	
1905–06	2,091,000	
1906–07	1,589,000	
1907–08	300,000	
1908–09		3,737,000
1909–10	606,000	
1910–11	3,936,000	
1911–12[1]	3,093,000	

Net surplus in 14 years £29,433,000.

[1] Revised Estimate.

During the same period there have been important reductions of taxation and a large increase in expenditure for public purposes.

In 1903–04 the Salt Tax was reduced and the limit of exemption from the Income Tax was raised from Rs. 500 to Rs. 1,000 per annum. In 1905–06 the Salt Tax was again reduced and

various cesses were remitted, and in 1907–8 the Salt Tax was still further reduced.

In 1907 and 1908 there occurred that fall in exchange, attended with a great reduction of the available gold, to which I have already alluded and in the financial year 1908–9 there was a large deficit, but recovery was rapid when the crisis was over.

The figures shewing the net imports of gold into India over a series of years deserve notice. For the twenty years preceding 1893–4, the year in which the Mints were closed, the net imports were on the average a little over 500,000 ounces per annum, but they varied a good deal from year to year. The maximum net import in any one year was 1,138,000 ounces. For the three years 1893–4 to 1896–7 the exports very nearly equalled the imports, but from that time forward the increase has been very great, though the amount fluctuates largely from year to year. In 1897–8 it was 732,000 ounces, in 1898–9 1,022,000 ounces, in 1899–1900 1,560,000 ounces, in 1906–7 2,377,000 ounces, in 1907–8 2,781,000 ounces, in 1909–10 3,505,000 ounces, in 1910–11 3,843,000 ounces, and in 1911–12 6,244,000 ounces.

There has also been during these years a considerable production of gold in India, averaging more than 600,000 ounces yearly, so that the total absorption of gold by India is

now very large. The following figures give the value in sterling of the gold absorbed by India in each of the last thirteen years:—

	£
1899	7,096,000
1900	7,546,000
1901	1,989,000
1902	5,054,000
1903	10,559,000
1904	8,261,000
1905	5,484,000
1906	9,409,000
1907	13,390,000
1908	6,601,000
1909	10,062,000
1910	17,623,000
1911	23,000,000 [1]

[1] Approximate.

On 31st March, 1912, the resources in the form of gold and gold securities on which the Government of India could rely for the maintenance of the gold standard came to £42,045,000, and this huge sum had been accumulated without imposing any cost on the revenues of India. Of this sum of £42,045,000 no less than £17,822,000 represented a profit due to the use of a cheaper currency in the form of overvalued rupees instead of gold. In order to ascertain the total profit made in this way there should be added the bullion value of the Rs. 29,000,000 held in the Gold Standard Reserve in India, about £1,300,000, and also the sum of £1,123,000 which was devoted to capital expenditure on Railways in India, making the total profit £20,245,000 in round numbers.

In addition to the imports of gold into India in recent years, that country has also imported a large quantity of silver, especially for the purpose of adding rupees to the currency. In the six years from 1879–80 to 1884–5 the average yearly import was 22,356,000 ounces. From 1885–6 to 1893–4 it was 39,261,000 ounces. After 1893–4 the imports of silver fell off for some time but increased largely when the demand for additional currency was experienced.

The net imports of silver in recent years have been as follows:—

Year.	Net Imports. Ozs.
1900–01	49,435,000
1901–02	39,005,000
1902–03	42,274,000
1903–04	79,182,000
1904–05	74,349,000
1905–06	84,317,000
1906–07	118,198,000
1907–08	97,915,000
1909–10	73,740,000
1910–11	61,014,000
1911–12	32,229,000

It would be very gratifying to those who, like myself, urged the introduction of a Gold Standard into India at a time when prospects seemed so unfavourable if it could be held that the remarkable results which have followed that change were due to the adoption of the Gold Standard. In my opinion, this is not the case; the establishment of a Gold Standard in India saved that country from the great fall in exchange and the

disturbance of values which otherwise must have followed the stoppage of the purchases of silver by the United States, relieved the Government of India from those fluctuations in exchange which had a paralysing effect on its action, justified it in raising larger amounts of capital in England for the extension of Railways and of Irrigation Works, and enabled it to adopt other measures of a beneficial character. It has also encouraged trade between India and England and been of great value in the direction of facilitating the movement of private capital between the two countries, and removing what was a perpetual source of doubt and apprehension. Nor is the saving of £20,245,000 by the use of a cheaper form of currency a matter of trifling importance, while the alleged injurious effect that a Gold Standard would have on India by lowering Indian prices and checking exports from India has proved to be purely imaginary. Exports from India have been much larger since the Gold Standard was established than they ever were before; prices have not fallen to an injurious extent; on the contrary the general complaint in India (and a well founded complaint) is that all persons on fixed incomes are suffering from an excessive rise of prices and wages! It has been one of the merits of the establishment of a Gold Standard that it has prevented a still higher rise of prices by something

between 25 and 30 per cent. But it would be just as correct to say that the increased prosperity of India has led to the establishment of the Gold Standard as to say that the Gold Standard was the sole cause of that prosperity.

The increase of prosperity in India caused an increase in her exports, and the increase in exports was one of the causes of the comparatively easy establishment of the Gold Standard.

The following figures show the increase in exports, excluding re-exports:—

Year.	Total Exports Excluding Bullion and Specie.
1898-9	£72,900,000
1899-1900	70,455,000
1900-01	69,440,000
1901-02	80,803,000
1902-03	83,919,000
1903-04	99,755,000
1904-05	102,760,000
1905-06	105,459,000
1906-07	115,588,000
1907-08	115,651,000
1908-09	99,904,000
1909-10	122,891,000
1910-11	137,207,000
1911-12	147,746,000 [1]

It will be seen that the increase in the yearly value has been very great, but the figures which more particularly affect the rate of exchange and the maintenance of the Gold Standard are those showing the excess of exports over imports of merchandise, and these figures for a series of years are given below:—

[1] The total value of the net imports of gold and silver in 1911-12 amounted to £28,730,000.

Year.	Excess of Exports of Merchandise over Imports.
1898–99	£27,132,000
1899–1900	22,519,000
1900–01	17,882,000
1901–02	24,076,000
1902–03	29,051,000
1903–04	40,616,000
1904–05	35,539,000
1905–06	33,147,000
1906–07	39,621,000
1907–08	27,249,000
1908–09	16,221,000
1909–10	43,440,000
1910–11	50,966,000
1911–12	55,782,000

Some portion at least of the credit for the establishment of the Gold Standard in India must be given to the men who constructed Railways and Irrigation Works, who planted Tea Gardens in Assam and the Dooars, worked Coal Mines in Bengal and Gold Mines in Mysore, established Jute Mills in Calcutta, and Cotton Mills in Bombay and elsewhere, as well as to the peasants who grew Rice in Burmah, Jute in Eastern Bengal, Cotton in Bombay and Wheat in the Punjab.

A circumstance very favourable to the establishment of the Gold Standard in India was the great increase in the world's production of gold. That increase tended to raise prices in the gold standard countries, and until the Indian Gold Standard became effective such rise in gold prices helped to raise the Indian exchange. When that exchange had reached 1*s.* 4*d.* the great increase in the production of gold had no

further effect of importance on the exchange; it tended from that time forward to raise Indian prices, and this rise in Indian prices, coupled with a great increase in Indian prosperity, necessitated and led to that increase of the rupee currency which has enabled the Government of India to make a profit of £20,245,000 by issuing silver rupees in exchange for gold. In the three years immediately succeeding the closing of the Indian Mints there was practically no addition to the rupee currency, but between 1899-1900 and 1907 8 the additions were very large.

The question of the rise and fall of general prices and wages in India has always been one of unusual difficulty, because India is of vast extent, and is mainly an agricultural country, while tracts of territory, to a greater or lesser extent in different years, suffer periodically from drought; the means of communication were in former years very inadequate and the cost of transport so high as to be in many cases prohibitive.

It also contains a number of what Economists call non-competing groups between which there is practically no interchange of capital and labour.

As a consequence, the fluctuations in prices from year to year in particular places are very great, and prices and wages may be

rising in some Provinces while they are stationary or nearly stationary in others. I believe that an enquiry into the changes in prices in recent years is now being carried out under the orders of the Government of India. All I can do at the present time is to offer a few general remarks on the subject.

Notwithstanding the alteration in the relative value of gold and silver, there was no marked tendency to a rise in wages and prices before 1885–6. After 1884–5 there was an increased import of silver notwithstanding the fall in exchange, and prices showed a tendency to rise, generally, up to the time when the Mints were closed in 1893.

It is beyond question that there has been a distinct rise in prices in recent years, and this is what I should expect.

India has no doubt escaped a portion of the rise in prices that would have been experienced if she had retained silver as the Standard of Value, but as soon as she came under the operation of the Gold Standard, she must expect to experience the effect of that increase in the production of gold which is now affecting prices in all other countries.

There is another cause, and in my opinion a more potent one, for a special rise in prices in India in recent years. During the last fifteen years the relative advantage of India in

the International Trade of the world has greatly improved. This improvement has been one of the causes of the rise in the Indian Exchange, and has led to large imports of gold and to the large additions to the rupee currency which the Government of India have had to make. Such an improvement is always attended with a general rise in prices and wages, as I have shown in Chap. IX., and is an indication of increased prosperity though the rise in prices presses hardly in the first instance on all those who are living on fixed incomes or whose wages and salaries do not at once respond to the change of prices.[1] The rise in prices and wages due to this cause will be found to be greatest in the places where manufactures have been started and in those parts which have contributed most largely to the increase in exports—such as Burmah, Eastern Bengal, and the Punjab.

As regards the permanence of the Indian Gold Standard, I see no ground for apprehension. The figures I have given, as well as others which I have examined but need not quote, leave no doubt in my mind that the increase in prosperity during the last fifteen years is due to causes which are permanent.

[1] I have no doubt that the fall in the purchasing power of the rupee has been one of the causes of the unrest in India in recent years. I left India in 1893, and even at that time the salaries of many of the subordinate Indian officials required revision.

There will no doubt be years of difficulty in the future as there have been in the past, but the falls in exchange will be, at the worst, only temporary, and the Government of India now possess very large gold reserves.

I do not overlook the fact that there has been large borrowing[1] in recent years in England which affects the balance of indebtedness favourably for the time being:—

Year.	Net Borrowing in London.
1905-06	£ 13,570,000
1906 07	1,061,000
1907-08	8,962,000
1908-09	4,492,000
1909-10	9,132,000
1910-11	6,892,000
1911-12	Nil.

This money has been borrowed to meet capital expenditure on Productive Public Works in India, and as it is judiciously expended for such purposes, there need be no fear that it will in the long run injuriously affect the exchange though a sudden cessation might, under certain conditions, produce some disturbance until trade had accommodated itself to the change. It would, however, be a great source of additional strength in the financial position of India if a larger proportion of the Railways and Irrigation Works could be constructed out of surplus revenue. Any surplus in the Gold

[1] Capital has also been sent to India during the same period by private persons, but I cannot estimate the amount.

Standard Reserve in excess of what is necessary to maintain the Gold Standard ought to be devoted to this purpose.

The great increase in the scale of Indian public expenditure in recent years is a ground for anxiety. The improvement in the Indian finances since 1898 has been great, is to a large extent of a permanent character, and may, perhaps, justify the increase in expenditure, but in past years any such increase would have ended in financial difficulties of a serious nature.

An important question which must soon be decided is whether the Government of India should encourage the circulation of gold in India as currency. The argument in favour of maintaining the circulation of silver rupees is that of economy, and it possesses force.

The saving to date effected under the present system exceeds twenty millions sterling. Considering, however, the great magnitude of the Indian Currency, and the fact that the people of India look on the coins which they handle as affording the readiest means of storing up their savings, I do not think that any obstacle should be placed in the way of the free circulation of gold. I should prefer to see a large portion of the Indian Currency in the form of gold coins. There is evidence that gold coins are already being largely used for some purposes, and it would seem best to facilitate the circulation of

gold in every way, and to issue gold coins which would be more convenient as currency than the sovereign which is valued at fifteen rupees. A gold coin of the value of ten rupees should be issued.

If a substantial portion of the Indian currency is ever to be composed of gold, the present time, while the production of gold is so large, is the proper moment for bringing about that result.

CHAPTER XVIII

CONCLUSION

The question whether it was wise for the world to abandon the double standard of gold and silver is one that possesses only an academic interest in the present day. Fate has decided in favour of the single gold standard; no country of importance now maintains a silver standard except China, and it is only a question of a few years before China, also, will change her Standard of Value.

It must be admitted that neither gold nor silver, nor a combination of the two metals, could be expected to give an ideal Standard, and it is possible that in the course of time a metallic Standard may cease to be used and some other form of Standard of Value brought into operation, but we are still a long way from that consummation.

Good authorities have said that although a combination of gold and silver might be expected to give a slightly better Standard of Value than either metal used alone, yet it is by

no means certain that this would be the case; it might happen that one of the metals would prove to be a better Standard of Value than would a combination of both. The argument would be more convincing if the world had been called upon to choose a Standard of Value before committing itself to either metal or both metals. As it happened, gold and silver were in possession of the field and the world's system of values had been founded on the use of both metals at a fixed ratio. It was a hazardous experiment to change from Bimetallism to gold alone as the world's Standard of Value, and I do not think the change would have been made if all the possible consequences had been foreseen.

The proposal which found favour with some writers that the poor and non-progressive nations should use the Silver Standard and other nations the Gold Standard was impracticable.

Apart from the question of sentiment, which was in favour of gold, it was in the highest degree improbable that any nation would be content to admit that it was poor and non-progressive and still less likely that it would promise to remain so for all time. Moreover, in the present day, no growing nation could afford to adopt a different Standard of Value from that of the more civilised and wealthy countries.

The same causes which led the Babylonians to

fix a ratio between gold and silver and the Sicilian Greeks to fix a ratio between copper and silver, would force modern nations to adopt the same Standard of Value as England, France. Germany, and the United States of America.

My experience leads me to the conclusion that a difference in Standards of Value between two nations having intimate commercial and financial relations is a far greater evil than might at first sight appear, and that under modern conditions it would prove intolerable everywhere, as it did in the case of India.

The danger that there might be a growing and dangerous increase in the Purchasing Power of Gold, which seemed probable in the last quarter of the nineteenth century, has been entirely removed for the time being by the extraordinary increase in the production of gold. After 1873 we experienced a great fall in prices and great depression in trade and industry, although there was at the same time a great reduction in the cost of production of many commodities and great improvement in the means of transport. At the present time we are experiencing the opposite effects. There is a general tendency to a rise in prices, and a feeling of prosperity prevails which is probably greater than the facts justify.

The fall in prices was unfavourable to Free Trade and gave a great stimulus to Protection because the persons who were suffering from the

all were prepared to support any device that promised to remove their immediate difficulties, and it is beyond doubt that the adoption of a Protective System, in addition to raising the prices of the protected articles, tends also to lower the general Purchasing Power of the Standard of Value, and to mitigate the effects of Appreciation.

The rise in prices which we are now experiencing has the opposite effect and leads the classes who feel their position growing worse to cry out against Protection. The political agitation in England in favour of what is called Tariff Reform was begun at a time which was unfavourable to any chance of success which it might have possessed under different conditions.

The indirect effects of a great increase or decrease in the Purchasing Power of the Standard of Value are probably far greater than the direct effects, and the rise in prices at the present time aggravates the unrest among the labouring classes and brings into operation forces which, but for that rise, might not have shown so much activity. It is believed that the rise in prices after the discovery of America had a great effect in modifying the social and political system of Europe. In our own time we have seen how the fall in the prices of agricultural produce stimulated the Land Agitation in Ireland and made Home Rule a burning question.

The tendency to a rise in prices which we now see in operation will, no doubt, continue for a number of years, but the existing gold mines will be worked out in time, and though fresh discoveries may lead to others taking their place, the productive strata and veins will gradually be exhausted. It is, therefore, probable that after a longer or shorter period there will again be a tendency towards an increase in the Purchasing Power of Gold; but no limit can be placed to the possible improvements in the methods of obtaining gold from the earth, and while it is possible that there may be experienced in the course of time an intolerable increase in the Purchasing Power of Gold, it is also possible, though in my opinion not probable, that there may be such a reduction in the cost of producing gold as to compel the abandonment of that metal as a Standard of Value. What appears at the present time most likely to happen in the future is a gradual rise in prices for some years, and a gradual fall in prices after thirty years or even less, since the consumption of gold for other uses than money is great and will grow rapidly as the nations that formerly had a silver Standard of Value become accustomed to handle gold.

It is, however, useless to speculate on what the future may bring forth. Each age must

deal with its own difficulties as they arise, but with the growth of population and wealth, the increase in the Volume of Trade due to the more intimate relations that are growing up between nations the most remote from each other, and the great multiplication of contracts involving the payment of money and extending over long periods, the problem of the Standard of Value will become one of increasing importance as time runs on. The extension and improvement of Banking tend to reduce the demand for gold, but when the system of Banking has reached its ultimate development, the Quantity Theory of Money will be subject to fewer qualifications than at any previous period in the history of the world.

In the past the Standard of Value has been chosen mainly with reference to its convenience as a Medium of Exchange, but in future the question of Stability of Value will possess greater importance, and some Economists hold that the final solution of the monetary problem will involve the abandonment of a metallic Standard of Value and the regulation of the quantity of the Currency with reference to the average level of prices.